

Names of American vascular plants published in Loeffling's *Iter Hispanicum* (1758) and its German translation (1766)

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Abstract Loeffling's *Iter Hispanicum* (1758) and its subsequent translations, editions, issues, and facsimiles are analyzed for their impact on the nomenclature of American vascular plants. The book, edited by Linnaeus and posthumously published, contains descriptions of plants found in Venezuela (as well as in the Iberian Peninsula). For American plants the original volume (1758) is the source of 31 new genera, 15 new species, and one replaced name, and a German translation (1766) is the source of an additional two new species. Many of these nomenclatural innovations have been ignored, overlooked, or intentionally suppressed, some for centuries. Other names in the *Iter Hispanicum* have been misinterpreted. We examine the reasons for considering these 49 names to be validly published and the nomenclatural ramifications. In the interests of nomenclatural stability we are forced to conclude that the names of at least ten taxa described by Loeffling should be rejected: *Ayenia sidiformis* Loefl., *Cofer* Loefl., *Cruzeta* Loefl., *Cruzeta hispanica* Loefl., *Edechia inermis* Loefl., *E. spinosa* L., *Justicia putata* Loefl., *Menais* Loefl., *Muco* Loefl., and *Samyda parviflora* Loefl. Likewise the names of two species described by Linnaeus that are tied to the *Iter Hispanicum* should be rejected: *Menais topiaria* L. and *Spermacoce suffruticosa* L. Finally, we select neotypes for *Gaura fruticosa* Loefl., *Salvinia michelii* Loefl., and *Waltheria melochioides* Loefl.

Keywords *Iter Hispanicum*; Alexander Bernhard Kölpin; Carl Linnaeus; Pehr Loeffling; South America; Venezuela

■ INTRODUCTION

Loeffling's *Iter Hispanicum* (1758), a source of both generic and specific plant names, is the first publication after the 1 Mai 1753 nomenclatural starting point for Spermatophyta and Pteridophyta (McNeill & al., 2006: Art. 13.1) providing an extensive treatment of South American plants authored by a Linnaean disciple who had knowledge of these plants in the field (see also Ewan, 1970). As one would expect for such an early work, the *Iter Hispanicum* was inconsistent in applying Linnaean principles to the naming of genera and species and this has caused considerable confusion. Interpretation of the American names published in this volume has proceeded mostly on an ad hoc basis and without an appreciation for how the entire work is constructed. Thus, our analysis of the *Iter Hispanicum* in connection with the Articles of the present ICBN (McNeill & al., 2006) leads us to conclude that a number of heretofore overlooked, ignored, or intentionally suppressed names are validly published.

The failure to adopt names Loeffling published in the *Iter Hispanicum* (1758) sometimes can be traced to contemporary treatments of the same taxa. Linnaeus recognized some and suppressed other Loeffling names in works such as the *Systema Naturae*, ed. 10 (1759) and *Species Plantarum*, ed. 2 (1762–1763), which were published shortly after the *Iter Hispanicum*. Nicolaus Joseph Jacquin (1727–1817), a contemporary of Loeffling who also visited South America (and the West Indies), occasionally cited the *Iter Hispanicum* in his

Enumeratio Systematica Plantarum (1760) and *Selectarum Stirpium Americanarum Historia* (1763), both of which also appeared shortly after Loeffling's publication.

Pehr Loeffling, Linnaean disciple. — Pehr Loeffling (1729–1756) (also Löffling) originally matriculated at the university in Uppsala intent on studying medicine, but he fell under the influence of Linnaeus and became a botanist. He was for a period of time Linnaeus's amanuensis (Ewan, 1970) and he has been described as “the star performer among the swarm of Linnaean disciples ...” (Stafleu, 1971: 149). In 1751, at the invitation of Ferdinand VI (1713–1759), Linnaeus sent Loeffling to Spain. Over the course of the next two years Loeffling studied and collected the Iberian flora. When the Spanish Crown organized a commission led by José de Iturriaga (1699–1767) to fix the boundary between Spain and Portugal in South America, a boundary that had been set by the Treaty of Madrid in 1750 but not yet surveyed, Loeffling was recruited as one of the naturalists. The expedition arrived in Cumaná, Venezuela on 11 April 1754, having sailed from Cadiz the previous November. Loeffling's companions, activities, and itineraries while in Venezuela are detailed elsewhere (Rydén, 1957; Gunckel, 1958). What is important for us is that he wrote down his observations on the plants (and animals) that he observed in Venezuela and even drafted a flora or florula of Cumaná before he died on 22 February 1756 at the mission station of Murrecurri on the Caroní River near its confluence with the Orinoco.

After Loeffling's death, Iturriaga had Loeffling's books and papers secured and arranged to have the manuscripts,

at least, returned to Spain (Rydén, 1957). In November 1757, Daniel Scheidenburg (1720–?), chaplain of the Swedish legation in Madrid, had some of Loeffling's manuscripts copied and translated into Swedish and sent to Linnaeus (Rydén, 1957; Gunckel, 1958: 29). These materials and the letters that Linnaeus received directly from Loeffling are the basis of the posthumous *Iter Hispanicum* (1758), which summarizes the results of Loeffling's botanical work not only in Portugal and Spain, but also Venezuela.

The precise date of publication of the *Iter Hispanicum* (1758) is uncertain, but it clearly was published in the latter part of 1758. Linnaeus wrote Johannes Burman (1706–1779) on 16 August 1758 and noted that he had had Loeffling's manuscripts transcribed and prepared for printing and intimated that he then was looking for a printer (Swedish Linnaeus Society, 2010). Richter (1840: xxx) stated that the volume appeared “1758. fine anni,” which Stafleu (1967: 291) converted to “Dec 1758” (see also Stafleu & Cowan, 1981: 139).

In addition to notes and manuscripts, illustrations of plants (and animals) associated with Loeffling's explorations were returned to Madrid and now are preserved in the Real Jardín Botánico (Rydén, 1957; Gunckel, 1958; Romero & al., 1997; Real Jardín Botánico, 2010, sub Fondo “Expedición de Límites al Orinoco. Pehr Löfling” (1743–1766)). There is no evidence, however, that Linnaeus had access to these drawings or to herbarium specimens from Venezuela when he edited the *Iter Hispanicum* (1758), although Loeffling specimens from the Iberian Peninsula were available to him. It is not even certain that specimens collected by Loeffling in Venezuela survived, and if they did they may not have reached Europe (but see G. López cited in Todzia & Barrie, 1991: 488; “Although Loeffling's collections were sent to Spain at the end of his fateful expedition to Venezuela, they have not been located at MA and are presumed lost”). Thus for American plants the interpretation of names proposed by Loeffling rests solely on their protologues. How these names were treated by contemporary authors provide some clues as to their identity.

The *Iter Hispanicum* (1758): its translations, editions, and issues. — The *Iter Hispanicum* (1758) is organized in discrete parts (see also Soulsby, 1933: 227); a dedication (pp. [iii–vi]), a preface (“Företal”) (pp. [vii–xx]), a diary of Loeffling's voyage to the Iberian Peninsula and later Venezuela (pp. 1–110), “Plantæ Hispanicæ Rariores” (pp. 111–175), “Plantæ Americanæ” (pp. 176–283), an Appendix (pp. 284–287), “Plantæ Hispanicæ. Missæ 1753 ...” (pp. 288–295), two letters to Linnaeus (pp. 296–301), an “Index Plantarum rarior. Hispanicarum” (pp. 302–304), and an “Appendix ultimus ...” (pp. 305–316). There also are two plates; t. 1 depicts five plants described in the “Plantæ Hispanicæ Rariores” (“Plantæ Hispanicæ in Horto Upsaliensi satæ, et deliniatæ; annuæ”) and t. 2 illustrates a grass discussed in one of the appendices (“*Lygeum spartum*”). The preface is essentially a biography of Loeffling.

American plants are treated in the “Plantæ Americanæ” and in the “Appendix ultimus.” The former is based on two, possibly three, manuscripts returned to Spain (Rydén, 1957: 102–103). The source of the latter is not as clear, but the appendix is devoted exclusively to South American (as opposed to Iberian)

taxa. The “Plantæ Americanæ” begins with an index (p. 176) to genera numbered 53–127. (Genera and species numbered 1–52 are taxa treated in the “Plantæ Hispanicæ”; the index on p. 111, however, is faulty as it gives an incorrect name for 51 and 52 is omitted). A single entry in this index is italicized (i.e., “93. *Contortæ*”) probably because it is not a genus, but rather a link to a description of Linnaeus's natural order *Contortorum* and a discussion of several genera. The “Plantæ Americanæ” is then divided into three sections; “*Sectio I: ma. GENERA NOVA.*” (pp. 177–201), “*Sectio 2: da. GENERA DUBIA.*” (pp. 201–210), and “*Sectio 3: tia. OBSERVATIONES Genera Plantarum illustrantes.*” (pp. 210–228), the last section providing references to genera in *Genera Plantarum*, ed. 3 (Linnaeus, 1743). This is followed by another index (pp. 229–230) entitled “PLANTÆ AMERICANÆ. Lectæ 1754 mense Decembri &c. in itinere Cumana inter Orinoco fluvium Barcellonam-Mission de Piritu” to 209 numbered taxa that are treated in the following section, which is entitled “SPECIES PLANTARUM observatæ in itinere a Cumana die 17 Decembr. 1754, ad fluvium Orinoco, per Barcellonam & Las Misiones de Piritu” (pp. 231–283). This second index (pp. 229–230) is organized by Linnaeus's sexual system of classification (*Monandria*, *Diandria*, etc.) with generic names linked to the numbered taxa (numbers 1–209) and not to pages. These numbers are independent of the numbers used for genera (numbers 1–127) in the “Plantæ Hispanicæ” and first part of the “Plantæ Americanæ.” Several of the index entries are set in italic type, but the significance of this is not indicated (but see later comments) as some of these italicized names are genera (e.g., “*Edechi*,” “*Hermesias*”) while others are not (e.g., “*Obscura*,” “*Frutex*,” “*Arborescens*”). Finally, the “Plantæ Americanæ” is followed by an appendix (pp. 284–287) that treats (and illustrates) the European grass *Lygeum* Loeffl. ex L. (*Poaceae*), which was published earlier (Linnaeus, 1754: 27).

A facsimile consisting of the title page and the “Plantæ Americanæ” (pp. 176–283) section of the *Iter Hispanicum* (1758) was published in Madrid (Loeffling, 1957) and edited by Stig Rydén (1908–1965) who provided a very brief introduction and a few notes. The facsimile bears the original paging of the *Iter Hispanicum*, but each page also was numbered independently of the original work. Thus the title page is also numbered p. 11 and the “Plantæ Americanæ” also assigned pp. 12–119. The “Appendix ultimus” was not included in this facsimile.

Alexander Bernhard Kölpin (1739–1801) translated the *Iter Hispanicum* (1758) into German. Organizationally, his translation (Loeffling, 1766) follows faithfully the original volume and although the paging is changed, marginal cross references to the paging of the original volume are included. Kölpin introduced a number of nomenclatural changes mostly reflecting what had been published in Linnaeus's *Systema Naturae*, ed. 10 (1759) and *Species Plantarum*, ed. 2 (1762–1763), but also Jacquin's *Enumeratio Systematica Plantarum* (1760) and *Selectarum Stirpium Americanarum Historia* (1763). For example, “GAURA fruticosa subscandens, foliis oppositis” (Loeffling, 1758: 248) became “GAURA fruticosa (COMBRETUM laxum p. 308)” (Loeffling, 1766: 320), where the species cited as a synonym of Loeffling's name is *Combretum laxum* Jacq. (1760:

19) and the cross-reference (“p. 308”) is uncorrected from the original 1758 edition. At least two novelties were published in this German translation; *Bontia nitida* Kölpin (*Acanthaceae*) and *Spermacoce spinosa* Kölpin (*Rubiaceae*) (see below). These novelties must be attributed to Kölpin, whose name appears on the title page, as we are certain they did not originate with Loeffling.

A facsimile of the “Plantæ Americanæ” portion of the Kölpin translation, *Reise, nach den spanischen Ländern in Europa und America* (Loeffling, 1766), was published by Pérez Arbeláez (1963) without comment or emendation. He reproduced the title page and pages 296–365, 392–406; pages 392–406 being the “Appendix ultimus” in the German translation. Pérez Arbeláez (1963) also reduced in size the pages reproduced from Loeffling (1766) and grouped them three to four per page in his reproduction.

A second edition of Kölpin’s German translation was published in 1776 (Loeffling, 1776). This was noted by Sabin (1878: 427–428) and Soulsby (1933: 227), but overlooked by Stafleu & Cowan (1981: 139). Although Foulché-Delbosc (1896) stated that the second edition is identical to the first with only the title page reprinted, there are significant differences with respect to the prefatory materials in the two editions. Only the text (pp. 1–406, tt. 1–2) of the two editions is identical, but that is the only part with nomenclatural implications for American plants.

Johann Reinhold Forster (1729–1798) translated the *Iter Hispanicum* (1758) into English and published this (Loeffling, 1771a) as a supplement to volume two of his translation of Jean-Bernard Bossu’s *Nouveaux Voyages aux Indes Occidentales* (1768). Forster also inserted between Bossu’s and Loeffling’s narratives an original compilation entitled “A Catalogue of the known plants, shrubs, and trees in North America” (pp. 17–67), which he also published separately as *Flora Americae Septentrionalis* (Forster, 1771). The book by Bossu (1720–1792), a French naval officer, was an account of the first two (1751–1757 and 1756–1762) of Bossu’s three trips to the French territory of Louisiana. It is not clear why Forster chose to append Loeffling’s work to an account of travels in Louisiana, but in any case this translation was done while Forster was in England and before he joined Capt. James Cook (1728–1779) as naturalist on the latter’s second voyage. Internal evidence strongly suggests that Forster’s English translation of Loeffling is based on the German translation by Kölpin, and not the original text edited by Linnaeus, as Forster’s version includes all of the nomenclatural innovations introduced by Kölpin. The two versions, Kölpin and Forster, were typeset independently and as one would expect, subtle differences were introduced mostly with respect to punctuation. Also, unlike Kölpin (Loeffling, 1766), Forster did not follow strictly the organizational sequence of the original *Iter Hispanicum*.

The Loeffling portion of Forster’s translation begins with a new title page “An abstract of the most useful and necessary articles mentioned by Peter Loeffling, botanist to his Catholic Majesty, in his travels through Spain, and that part of South America called Cumana” (p. [69]). This is followed by “The Life of Peter Loeffling” (pp. 71–87), “Plantæ Hispanicæ. Rariores descriptiones epistolares authoris” (pp. [87, sic]–195),

“Appendix. Lygeum. Novum Plantæ Hispanicæ genus” (pp. 196–203), “Index systematicus plantarum rariorum Hispanicarum a Loefflingio repetarum” (pp. 204–222) (pp. 220–221 repeated with different text, and pp. 223–224 omitted), “Plantæ Americanæ,” including its subdivisions (pp. [225]–404), “Appendix Ultima [sic], absoluto opere missa” (pp. 405–422), and an Index (p. [423]–432) to volume one of the Bossu translation. Unlike the original (Loeffling, 1758) and the Kölpin translation (Loeffling, 1766), Forster placed the index to the “Plantæ Hispanicæ” after the Appendix devoted to *Lygeum*.

Copies of Forster’s translation of Loeffling exist also as a separate issue (Loeffling, 1771b); the typesetting is the same, but the Bossu materials and Forster’s *Catalogue* are omitted. The title page for this separate, which is identical to page 69 of volume two of the Forster (Loeffling, 1771a) translation of Bossu, is substituted for the title page of the entire work and this is followed by the same materials as discussed above.

As part of a larger project focused on the Linnaean disciples, Loeffling’s *Iter Hispanicum* (1758) was translated into “modern” English and portions were transcribed (Loeffling, 2008). The editors of this version abandoned the original paging of Loeffling’s book and curiously failed to even provide cross references as was done with the German (1766, 1776) and the first English (1771a,b) translations. Thus, although organized as in the original, this version of the “Plantæ Americanæ” begins with an index (p. 1123) to genera numbered 53–127. The text then is divided into three sections as in the original; the first on pp. 1124–1136, the second on pp. 1136–1141, and the third on pp. 1141–1152. This is followed by the index (pp. 1153–1154) to the 209 numbered taxa except that in this version the index has names only and the connection between names and numbers is broken!

Ignacio Jordan de Asso del Rio (1742–1814) translated the *Iter Hispanicum* (1758) into Spanish, and published his translation in a series of articles in Madrid (Asso del Rio, 1801–1802). He was interested in the Iberian flora and consequently omitted the “Plantæ Americanæ” and “Appendix ultimus,” which treat South American plants. A century later, his Spanish translation was reprinted without changes except for page numbering (Asso del Rio, 1907). Both translations conclude with the two letters sent by Loeffling from Cumaná to Linnaeus and these are the only materials relating to Venezuela in this Spanish abridgement of the *Iter Hispanicum* (see also Rydén, 1957).

Validly published names of genera of American plants in the *Iter Hispanicum* (1758). — Thirty-one generic names applied to American plants are validly published in the original edition of the *Iter Hispanicum* (1758; see Table 1) and nine of these are in current use: *Byttneria* Loefl., *Callisia* Loefl., *Cecropia* Loefl., *Combretum* Loefl., *Curatella* Loefl., *Krameria* Loefl., *Lecythis* Loefl., *Sequoiaria* Loefl., and *Triplaris* Loefl. Generic names are set in all capital letters and when new taxa are described the arrangement, content, and typesetting of the descriptions generally follow the model employed in the *Genera Plantarum*, ed. 5 (Linnaeus, 1754; see also Dandy, 1969; McVaugh, 1972). However, nine genera (*Critta* Loefl., *Dere-damo* Loefl., *Ipotaraguapin* Loefl., *Jahipha* Loefl., *Mahoma* Loefl., *Mastranzo* Loefl., *Muco* Loefl., *Paramini* Loefl., and

Triplaris Loefl.) do not follow this model. New American genera are described in both the “Plantæ Americanæ” (20 genera) and in the “Appendix ultimus” (9 genera). Two genera, *Corazon* Loefl. and *Edechia* Loefl., have validating descriptions in both of these sections of the *Iter Hispanicum*.

Dandy (1967: 16) categorically dismissed Loeffling genera that were described under vernacular names (i.e., “*Muco*, p. 234; *Deredamo*, p. 250; *Edechi*, pp. 259, 271; *Tepuguiepe*, p. 262; *Paramini*, p. 264; *Ipotaraguapin*, p. 270; *Mastranzo*, p. 272; *Corazon*, p. 305; *Jahipha*, p. 309; *Cofer*, p. 309; *Bejuco*, p. 314”) and others that employed token words suggesting affinity and ending in *-oides* (i.e., “*Staehelinoïdes*, p. 245; *Malpighioides*, p. 262; *Celosioïdes*, p. 306”). He argued that “none of these words can be accepted as generic names, since they contravene the rules for the formation of such names laid down by Linnaeus, who edited the work and of whom Loeffling was a follower” (see

additional comments at end of this section). Dandy (1967) did note that the vernacular name *Edechi*, however, was Latinized as the generic name *Edechia* (Loeffling, 1758: 306). Stafleu & Cowan (1981: 139) pointed to Dandy’s paper “for details on inadmissible names (vernacular names or token words)” found in the *Iter Hispanicum* (1758), which is unfortunate as the *ICBN* (McNeill & al., 2006: Art. 20.1) permits the formation of generic names from vernacular names; “[The name of a genus] may be taken from any source whatever, and may even be composed in an absolutely arbitrary manner . . .” Indeed, apart from Loeffling (1758) many generic names taken directly from the vernacular are in current use and the *ICBN* (McNeill & al., 2006: Art. 62.3) acknowledges this in providing the means for determining the gender of such names.

The use by Loeffling (1758) of words such as “Arbor,” “Frutex,” “Gramen,” and “Planta” that are typeset in all capital

Table 1. Identity and status of genera of American plants proposed in the *Iter Hispanicum* (1758).

<i>Allionia</i> Loefl., <i>Iter Hispan.</i> : 176, 181. 1758, nom. rej. = <i>Mirabilis</i> L. (1753) (<i>Nyctaginaceae</i>)
<i>Bejuco</i> Loefl., <i>Iter Hispan.</i> : 314. 1758 = <i>Hippocratea</i> L. (1753) (<i>Celastraceae</i>)
<i>Byttneria</i> Loefl., <i>Iter Hispan.</i> : 313. 1758, nom. cons. (<i>Malvaceae</i>)
<i>Calceolaria</i> Loefl., <i>Iter Hispan.</i> : 176, 183, 185. 1758, nom. rej. = <i>Hybanthus</i> Jacq. (1760), nom. cons. (<i>Violaceae</i>)
<i>Callisia</i> Loefl., <i>Iter Hispan.</i> : 305. 1758 (<i>Commelinaceae</i>)
<i>Cecropia</i> Loefl., <i>Iter Hispan.</i> : 230, 272. 1758, nom. cons. (<i>Moraceae</i>)
<i>Cofer</i> Loefl., <i>Iter Hispan.</i> : 309. 1758. = <i>Symplocos</i> Jacq. (1760) (<i>Symplocaceae</i>)
<i>Combretum</i> Loefl., <i>Iter Hispan.</i> : 308. 1758, nom. cons. (<i>Combretaceae</i>)
<i>Corazon</i> Loefl., <i>Iter Hispan.</i> : 232, 305. 1758 (Incertae sedis)
<i>Critta</i> Loefl., <i>Iter Hispan.</i> : 230, 236. 1758 (Incertae sedis)
<i>Cruzeta</i> Loefl., <i>Iter Hispan.</i> : 176, 203. 1758 (<i>Amaranthaceae</i>)
<i>Curatella</i> Loefl., <i>Iter Hispan.</i> : 229, 260. 1758 (<i>Dilleniaceae</i>)
<i>Deredamo</i> Loefl., <i>Iter Hispan.</i> : 230 (‘ <i>Derredamo</i> ’), 250. 1758 (Incertae sedis)
<i>Edechia</i> Loefl., <i>Iter Hispan.</i> : 229 (‘ <i>Edechi</i> ’), 259 (‘ <i>Edechi</i> ’), 271 (‘ <i>Edechi</i> ’), 306. 1758 = <i>Guettarda</i> L. (1753) (<i>Rubiaceae</i>)
<i>Hermesias</i> Loefl., <i>Iter Hispan.</i> : 229, 278. 1758, nom. rej. = <i>Brownea</i> Jacq. (1760), nom. cons. (<i>Fabaceae</i>)
<i>Hermupoa</i> Loefl., <i>Iter Hispan.</i> : 307. 1758, nom. rej. = <i>Steriphoma</i> Spreng. (1827), nom. cons. (<i>Capparaceae</i>)
<i>Ipotaraguapin</i> Loefl., <i>Iter Hispan.</i> : 230 (‘ <i>Ipotaragua</i> ’), 270. 1758 (<i>Rubiaceae</i> ?)
<i>Jahipha</i> Loefl., <i>Iter Hispan.</i> : 309. 1758. = <i>Manihot</i> Mill. (1754) (<i>Euphorbiaceae</i>)
<i>Krameria</i> Loefl., <i>Iter Hispan.</i> : 176, 195, 231. 1758 (<i>Krameriaceae</i>)
<i>Lecythis</i> Loefl., <i>Iter Hispan.</i> : 176, 189. 1758 (<i>Lecythidaceae</i>)
<i>Mahoma</i> Loefl., <i>Iter Hispan.</i> : 309. 1758 (Incertae sedis)
<i>Mastranzo</i> Loefl., <i>Iter Hispan.</i> : 230, 272. 1758 = ? <i>Marrubium</i> L. (1753) vel <i>Hyptis</i> Jacq. (1786), nom. cons. (<i>Lamiaceae</i>)
<i>Menais</i> Loefl., <i>Iter Hispan.</i> : 306. 1758 (Incertae sedis)
<i>Moniera</i> Loefl., <i>Iter Hispan.</i> : 176 (‘ <i>Monieria</i> ’), 197. 1758, hom. illeg. ≡ <i>Ertela</i> Adans. (1763) (<i>Rutaceae</i>)
<i>Muco</i> Loefl., <i>Iter Hispan.</i> : 230, 234. 1758 (<i>Capparaceae</i>)
<i>Paramini</i> Loefl., <i>Iter Hispan.</i> : 230, 264. 1758 (Incertae sedis)
<i>Piscipula</i> Loefl., <i>Iter Hispan.</i> : 230, 275. 1758, nom. nov. ≡ <i>Piscidia</i> L. (1759), nom. cons. (<i>Fabaceae</i>)
<i>Segueria</i> Loefl., <i>Iter Hispan.</i> : 176, 191. 1758 (<i>Phytolaccaceae</i>)
<i>Tepuguiepe</i> Loefl., <i>Iter Hispan.</i> : 262. 1758 (<i>Fabaceae</i>)
<i>Triplaris</i> Loefl., <i>Iter Hispan.</i> : 229, 256. 1758 (<i>Polygonaceae</i>)
<i>Wedelia</i> Loefl., <i>Iter Hispan.</i> : 176, 180. 1758, nom. rej. ≡ <i>Allionia</i> L. (1759), nom. cons. (<i>Nyctaginaceae</i>)

letters like other genera that are validly published can be dismissed as not complying with the *ICBN* (McNeill & al., 2006: Art. 20.4(a) & Ex. 9) as these words clearly are not intended as names. Likewise, Dandy (1967: 16) was correct in dismissing “*Celosioides*” Loefl., “*Malpighioides*” Loefl., and “*Stæhelioides*” Loefl. (also “*Convolvuloides*” Loefl.) as these are token words suggesting affinity and thus are not validly published (McNeill & al., 2006: Art. 20.4 (a) & Ex. 10).

In a number of instances, Loeffling (1758) cited a genus published earlier by Linnaeus or P. Browne followed by a full stop and then a generic synonym (or synonyms) followed by a description (Table 2). On occasion, these names have been interpreted as species (binary combinations), which they are not. Examples of these misinterpretations are the recognition of “*Krameria ixine* Loefl.” (Simpson, 1989: 81) and “*Ixia xiphidium* Loefl.” (Maas & Maas van de Kamer, 1993: 2, 27). Other monographers have recognized this convention for what it is, a generic name and synonym(s). Pennington (1981: 106) listed “*Trichilia halesia* Loefl.” (1758) as a synonym of *T. trifolia* L. (1759) and stated that although the Loeffling “name” preceded the Linnaean one and had been taken up by Urban (1921: 160, resulting in *T. halesia* Urb., nom. superfl. illeg.), there was “considerable doubt as to whether the ‘*halesia*’ of Loeffling was intended as a specific epithet rather than an alternative generic name for *Trichilia*.” Kuijt & Kellogg (1996: 49) correctly interpreted “*Loranthus. Stelis Loefl. Scurrula Brown*” as generic synonymy, although “*Stelis*” Loefl. cannot be considered a validly published generic name. Confusion about

the status of these generic names (Table 2) may stem, in part, from the fact that in many instances, Loeffling published a genus without a species (e.g., *Curatella* Loefl., *Lecythis* Loefl., *Triplaris* Loefl., etc.). Loeffling’s generic names generally were accepted in the *Systema Naturae*, ed. 10 (Linnaeus, 1759) and the *Species Plantarum*, ed. 2 (Linnaeus, 1762–1763), and it is in these publications that one first finds species described in these Loeffling genera. A slightly different generic synonymy published by Loeffling (1758) is “SPONDIAS. Hobo *hispanis*,” where we have a Linnaean name followed by what we interpret to be a corrupted pre-Linnaean generic name (i.e., *Hobos* Bauhin, 1623).

A similar problem is seen with respect to the fewer instances in which Loeffling (1758) published a generic name followed immediately by a common name (Table 2); “*Chrysophyllum. Barbasco*” and “*Sideroxylon. Pacurero*” both of which are Linnaean generic names separated from a vernacular name by a full stop (see McNeill & al., 2006: Art. 23.6b). Ståhl (1992: 55), aware that Loeffling (1758) employed “*Barbasco*” as a common name, placed “‘*Chrysophyllum. Barbasco.*’ Loeffling, *Iter Hisp.* 204. 1758, nom. vernac.” in synonymy under *Jacquinia armillaris* Jacq. (*Theophrastaceae*, now *Primulaceae*). Similarly, Stearn (1992) argued that *J. barbasco* Mez is a nom. superfl. illeg. (\equiv *J. arborea* Vahl) and not a transfer of a nonexistent Loeffling basonym. Pennington (1990: 114) listed “*Sideroxylon pacurero* Loeffling” as a synonym of *S. obtusifolium* (Roem. & Schult.) Penn. (based on *Bumelia obtusifolia* Roem. & Schult.) and he glossed over what should have been an issue regarding

Table 2. Generic names in the “*Plantæ Americanæ*” section of the *Iter Hispanicum* (1758) that are followed immediately by generic synonyms or vernacular names.

(Page) “ <i>Plantæ Americanæ</i> ”	Genus (synonym/s or vernacular name)
(199) AYENIA. (<i>Jungia Authoris.</i>)	<i>Ayenia</i> L. (1756) (<i>Jungia</i> auct.)
(264) BAUHINIA <i>Bacaptal vulgo.</i>	<i>Bauhinia</i> L. (1753) (“ <i>Bacaptal</i> ”)
(193) BONTIA. (<i>Donatia Læfl.</i>)	<i>Bontia</i> L. (1753) (“ <i>Donatia</i> ” Loefl., nom. nud., pro syn.)
(183) CALCEOLARIA. (<i>Viola sorte.</i>)	<i>Calceolaria</i> Loefl. (1758) (“related to” <i>Viola</i> L. (1753))
(272) CECROPIA. <i>Coilotapalus. Brown. jam. III.</i>	<i>Cecropia</i> Loefl. (1758), nom. cons. (<i>Coilotapalus</i> P. Browne (1756), nom. rej.)
(183) CEDRELA. <i>Brownii. Cedro. Authoris.</i>	<i>Cedrela</i> P. Browne (1756) (<i>Cedro</i> auct.)
(204) CHRYSOPHYLLUM. <i>Barbasco.</i>	<i>Chrysophyllum</i> L. (1753) (“ <i>Barbasco</i> ”)
(177) COMMELINA? <i>Wachendorfia Authoris.</i>	<i>Commelina</i> L. (1753) (<i>Wachendorfia</i> auct.)
(194) ELLISIA. (<i>Hoffmannia Læfl.</i>)	<i>Ellisia</i> P. Browne (1756) (“ <i>Hoffmannia</i> ” Loefl., nom. nud., pro syn.)
(190) GUIDONIA. <i>Brown. jam. 249. Laëtia Authoris</i>	<i>Guidonia</i> P. Browne (1756), nom. illeg. (<i>Laëtia</i> auct.)
(179) IXIA. <i>Xiphidium Authoris.</i>	<i>Ixia</i> L. (1753), nom. rej. (<i>Xiphidium</i> auct.)
(195) KRAMERIA. (<i>Ixine Læfl.</i>)	<i>Krameria</i> Loefl. (1758) (“ <i>Ixine</i> ” Loefl., nom. nud., pro syn.)
(187) LORANTHUS. <i>Stelis Læfl. Scurrula Brown</i>	<i>Loranthus</i> L. (1753), nom. rej. (“ <i>Stelis</i> ” Loefl., nom. nud., pro syn.; <i>Scurrula</i> P. Browne (1756))
(178) PONTERERIA. <i>Phrynium Authoris.</i>	<i>Pontederia</i> L. (1753) (<i>Phrynium</i> auct.)
(204) SIDEROXYLON. <i>Pacurero.</i>	<i>Sideroxylon</i> L. (1753) (“ <i>Pacurero</i> ”)
(201) SPERMACOCE. (<i>Dioidioides Læfl.</i>)	<i>Spermacoce</i> L. (1753) (“ <i>Dioidioides</i> ” Loefl., nom. nud., pro syn.)
(209) SPONDIAS. <i>Hobo hispanis.</i>	<i>Spondias</i> L. (1753) (“ <i>Hobos</i> ” C. Bauhin (1623))
(188) TRICHILIA. (<i>Halesia Læflingii.</i>)	<i>Trichilia</i> P. Browne (1756), nom. cons. (“ <i>Halesia</i> ” Loefl., nom. nud., pro syn.)
(194) VERBENA. (<i>Burseria Læflingii.</i>)	<i>Verbena</i> L. (1753) (“ <i>Burseria</i> ” Loefl., nom. nud., pro syn.)

priority by accepting a seemingly younger epithet. Curiously, in the same monograph, Pennington (1990: 620) appears to have recognized that *C. barbasco* was not published by Loeffling (1758) as he ascribed the binomial to “Loeffling ex A. de Candolle in A.P. de Candolle” (but this nonetheless is a nomen nudum according to Ståhl, 1992). IPNI (2010) also recognizes “*Sideroxylon pacurero* Loeffl., It. 204” but given our argument this name cannot be derived from the *Iter Hispanicum* (1758).

In the “Plantæ Americanæ,” Loeffling (1758: 275) described capturing an opossum in a hollow tree and he referred the animal to *Didelphis* L. He provided some taxonomic information but did not construct a formal description as he did (Loeffling, 1758: 276) with two other animals in this section; one a snake (“172. COLUBER scutis abdominalibus 190, ...”) and the other a frog (“173. RANA arborea pedibus sissis ...”). Although both these latter genera are assigned collection numbers (172 and 173, respectively), neither one is included in the index (pp. 229–230) to that part of the “Plantæ Americanæ.” All three animal genera were described on 1 January 1758 in the first volume of the *Systema Naturae*, ed. 10 (Linnaeus, 1758), the starting point of zoological nomenclature (Stafleu & Cowan, 1981: 100).

Finally, inasmuch as the *Iter Hispanicum* (1758) is a posthumous work, we also have the problem of ascription. The volume was edited by Linnaeus, but tradition has us credit the names to Loeffling alone. Nevertheless, Table 2 indicates several instances, all from Sections 1–3 (pp. 177–228) of the “Plantæ Americanæ,” where the generic designations of Loeffling were likely replaced with others by Linnaeus, suggesting the latter was the author of some names. It is also possible that Linnaeus may have prepared the index (pp. 229–230) to the “SPECIES PLANTARUM” section (pp. 231–283). All of the generic names from this section considered by Dandy (1967) as inadmissible are referenced in this index either under italicized entries (i.e., *Obscura*: “CORAZON” no. 36; *Stæhelinoides*: “STÆHELINOIDES” nos. 103, 176, 201; *Edechi*: “EDECHI” nos. 133, 155; *Frutex*: “TEPUGUIPE” no. 139), under other generic entries in Roman type (i.e., *Celosia*: “CORAZON” no. 9, “CELOSIODES” no. 20; *Convolvulus*: “CONVOLVULOIDES” nos. 16, 122, 123; *Malpighia*: “MALPIGHIOIDES” no. 139), or remained unclassified (in Roman type) in the APPENDIX to the index (i.e., *Muco*: “MUCO” no. 57; *Derredamo*: “DEREDAMO” no. 109; *Paramini*: “PARAMINI” no. 142; *Ipotaragua*: “IPOTARAGUAPIN” no. 154; *Mastranzo*: “MASTRANZO” no. 163). Other entries are also indexed differently (i.e., *Tamarindus*: “TRIUMFETTA” no. 22; *Pisonia*: “ARBOR” no. 48; *Epidendrum*: “Planta orchidea” no. 76; *Hedysarum*: “Planta” nos. 78, 88; *Apluda*: “GRAMEN” no. 100; *Obscuræ*: “RUELLIA?” no. 124; *Bixa*: “BIHAI” no. 191; *Marsilia*: “SALVINIA” no. 195) or with slightly altered spelling (*Banisteria*: “BANNISTERIA” nos. 108, 110; *Palmæ*: “PALMA” nos. 114, 115) from what appears in Loeffling’s notes. Does this index represent Linnaeus’s attempt to reconcile the names from Loeffling’s 209 collections with his own generic classification? If so it provides some evidence that Dandy (1967) was correct in his assertion that Linnaeus did not accept those genera whose entries he placed in italics (also including *Hermesias* Loeffl. and *Critta* Loeffl. not mentioned by Dandy) or

relegated to the Appendix of the index. The same facts would imply, however, that Loeffling himself did accept them and that they were validly published by him (see McNeill & al., 2006: Art. 34 Ex. 3).

Validly published binomials for American plants in the *Iter Hispanicum* (1758) and its German translation (1766). — We have identified four categories of validly published binomials in the “Plantæ Americanæ” section of the *Iter Hispanicum* (1758) and its German translation (Loeffling, 1766). These are entries with both binary designation and a validating description or diagnosis. In all of these cases, the genus name is typeset in all capital letters. The categories are:

1. A specific epithet in italics within a polynomial diagnosis (e.g., “JUSTICIA *putata* spicis terminalibus pluribus; flore rubro.”). Loeffling also presented names previously published by Linnaeus (1753) in this format.
2. A binomial on a separate line (often ending in a full stop) followed by a description in a separate paragraph (e.g., “CRUZETA *hispanica*.” and “CROTALARIA *Espadilla*.”).
3. A binomial followed by a full stop and a description continuing on the same line (e.g., “JUSTICIA *diandra*. *Diantheræ affinis flore cæruleo ...*” and “SAMYDA *parviflora*. *Frutex albus, ramis alternis inæqualibus longis*”).
4. A binomial with a reference to a validating description elsewhere in the volume (e.g., “EDECHIA ... 1. sp. in-ermis. p. 271”).

There are several entries for American plants that ostensibly fall into one or the other of these four categories, but on close inspection do not. In the “Plantæ Americanæ” three species are associated with the description of the genus *Calceolaria* Loeffl. (Loeffling, 1758: 183–185); the first two are polynomials and the third appears to be a binomial (i.e., “3. CALCEOLARIA *frutescens*”). The name is on a separate line ending with a full stop and it is followed by a description (as in case number 2) (Loeffling, 1758: 185). The species, however, is a nomen nudum and the description that follows it is the generic description for *Calceolaria*; the arrangement, content, and typesetting of this description is modeled closely on descriptions in the *Genera Plantarum*, ed. 5 (Linnaeus, 1754; see also Dandy, 1969; McVaugh, 1972). For whatever reasons, this same convention of placing the generic description after the third of three species treated within a genus also was used in the treatments of *Ayenia* L. (Loeffling, 1758: 199–201) and *Convolvulus* L. (Loeffling, 1758: 205–207).

Another entry in “Plantæ Americanæ” that appears to be a binomial followed by a full stop and description continuing on the same line (case number 3) is: “49. *Carnes tollenda*. *Arbor mediocris, flores luteis, maximis polyandris*” (Loeffling, 1758: 233; 1766: 302). However, the generic name is not set in all capital letters as are other genera described or recognized in the *Iter Hispanicum* (1758). We suspect that Linnaeus misread Loeffling’s notes as “carnes tollendas” appears to be a shortening of the Latin phrase “Dominica antes carnes tollendas,” which translates as the Sunday before one stops eating meat (i.e., the Sunday before Carnival and Lent). In addition, neither

the number (“49”) nor the name (“Carnes”) is listed in the index (pp. 229–230) to the “Plantæ Americanæ.”

Finally, in the “Appendix ultimus”, while the line “CONVOLVULO *adfinis*, pentandra digyna, *spec. nov.*” (Loeßling, 1758: 315) is followed by a description the “epithet” “*adfinis*” (related to) cannot have been intended as a specific name (McNeill & al., 2006: Art. 23.6.b). Our interpretation seems to be supported by the German translation (Loeßling, 1766: 405) where “EVOLVULUS” is added to the line following “*spec. nov.*” Consequently, no species name appears to be validly published in the “Appendix ultimus.”

As is the case with generic names, there are instances where ascription of authorship is incorrect (e.g., “Loeßl. ex L.” versus “Loeßl.”). Tradition requires us to ascribe authorship of new species in the *Iter Hispanicum* (1758) to Loeßling alone. In the German translation (Loeßling, 1766) authorship of new names must be attributed to Kölpin alone.

■ AMERICAN SPECIES AND GENERA PUBLISHED IN LOEßLING'S *ITER HISPANICUM* (1758) AND ITS GERMAN TRANSLATION (1766)

For each name discussed below, bibliographic references are given to the original *Iter Hispanicum* (1758) and all relevant translations, repaginated facsimiles, and published transcriptions. References also are given to the *Species Plantarum*, ed. 2 (Linnaeus, 1762–1763). While all American species are listed, only those American genera that necessitate comment are listed. A complete list of generic names proposed for American plants can be found in Table 1. Names in bold face type here and in Table 1 are those that the *ICBN* (McNeill & al. 2006) would have us adopt. Names marked with an asterisk (*) are additions to IPNI (2010).

Acanthaceae

**Bontia nitida* Kölpin in Loeßling, *Reise Span. Länd.*: 255. 1766, ed. 2: 255. 1776; in Bossu, *Trav. N. Amer. Louisiana*: 254. 1771. Type: not designated.

= *Bontia germinans* L., *Syst. Nat.*, ed. 10, 2: 1122. 1759; *Sp. Pl.*, ed. 2, 2: 891. 1763 ≡ *Avicennia tomentosa* Jacq., *Enum. Syst. Pl.*: 25. 1760, nom. superfl. illeg.; *Select. Stirp. Amer. Hist.*: 178, t. 112, fig. 2. 1763 ≡ *Avicennia germinans* (L.) L., *Sp. Pl.*, ed. 3, 2: 891. 1764. Lectotype (selected by Stearn, 1958: 35): Jamaica. *Browne*, *Herb. Linn.* No. 813.2 (LINN).

Additional synonyms given in Compère (1963).

Loeßling (1758: 193) originally cited *Bontia* L. (1753) without a species name, but provided an unpublished generic synonym (“*Donatia*” Loeßl., nom. nud., pro syn.), a common name (“Mangle negro”), and habitat (“ad mare”) that combined leave little doubt that he was describing the black mangrove. Subsequently, Linnaeus (1759: 1122) cited Loeßling’s description (“*Læfl. hisp.* 193”) and a P. Browne polynomial under *B. germinans* L., but he did not mention Loeßling when he

revisited the species several years later (1763: 891). In 1760, Jacquin included the earlier *B. germinans* L. under his *Avicennia tomentosa* Jacq., nom. superfl. illeg. Subsequently, Jacquin (1763: 178) cited “*Donatia. Læfl. hisp.* 193” under *A. tomentosa* and Linnaeus (1763: 891) cited “*Jacq. amer.* 25” in synonymy under *B. germinans*. Kölpin in Loeßling (1766: 255) published *B. nitida* Kölpin without changing Loeßling’s (1758) description, merely inserting a specific epithet (i.e., “*BONTIA. nitida.* (Donatia Loeßl.)”).

**Justicia diandra* Loeßl., *Iter Hispan.*: 235. 1758, *Ibid.*: 71 [235]. 1957; *Reise Span. Länd.*: 303. 1766, ed. 2: 303. 1776; in Bossu, *Trav. N. Amer. Louisiana*: 322. 1771; in Hansen, *Löffling’s J.*: 1157. 2008. Type: not designated. Identity unknown.

**Justicia putata* Loeßl., *Iter Hispan.*: 244. 1758, *Ibid.*: 80 [244]. 1957; *Reise Span. Länd.*: 315. 1766, ed. 2: 315. 1776; in Bossu, *Trav. N. Amer. Louisiana*: 338. 1771; in Hansen, *Löffling’s J.*: 1163. 2008. Type: not designated.

= *Justicia pulcherrima* Jacq., *Enum. Syst. Pl.*: 11. 1760; *Select. Stirp. Amer. Hist.*: 6, t. 2, fig. 4. 1763 ≡ *Aphelandra pulcherrima* (Jacq.) Kunth in Humboldt & al., *Nov. Gen. Sp.* [qu] 2: 236, *Ibid.* [fol] 2: 192. 1817. Type: Colombia. Bolívar: “Habitat frequens Carthagenae in sylvaticis montis de la Popa,” *Jacquin s.n.* (holotype, W).

Additional synonyms given in Wasshausen (1975: 88).

In his expanded description of *Justicia pulcherrima*, Jacquin (1763: 6) cited Loeßling’s diagnosis of *J. putata*, but he omitted or suppressed Loeßling’s specific epithet. Vahl (1804: 119) explicitly cited the earlier *J. putata* as a synonym of *J. pulcherrima*. Apart from the Loeßling translations and facsimiles, the name *J. putata* has not been used since 1760 and to accept it now would displace *Aphelandra pulcherrima* (Jacq.) Kunth, which has been used for almost two hundred years and is the name adopted in a revision of *Aphelandra* R. Br. (Wasshausen, 1975). The species has an extensive distribution from Costa Rica to Andean Peru, and the islands of Trinidad and Tobago, and it is included in numerous checklists and floras. We argue (Dorr & Wiersema, 2010) that nomenclatural stability is best preserved by rejecting Loeßling’s name.

Amaranthaceae

Cruzeta hispanica Loeßl., *Iter Hispan.*: 203. 1758, *Ibid.*: 39 [203]. 1957; Linnaeus, *Sp. Pl.*, ed. 2, 1: 179. 1762 (“*Crucita*”); Loeßling, *Reise Span. Länd.*: 236 [sic, i.e., 266]. 1766 (as “*Cruzeta (Crucita) hispanica*”), ed. 2: 236 [sic, i.e., 266]. 1776; in Bossu, *Trav. N. Amer. Louisiana*: 270. 1771 (as “*Cruzeta (Crucita) hispanica*”); in Hansen, *Löffling’s J.*: 1137. 2008 ≡ *Cruzeta americana* Lam., *Encycl.* 2(1): 218. 1786 (“*Cruzita Americana*”), nom. illeg. [An illegitimate renaming of Loeßling’s species] ≡ *Cruzeta hispano-americana* Roem. & Schult., *Syst. Veg.*, ed. 15 bis, 3: 484. 1818 (“*Cruzita*”), nom. illeg. [An illegitimate renaming of Loeßling’s species]. Type: not designated. Identity unknown.

This is a combined generic and specific description (see McNeill & al., 2006: Art. 42.1) that appeared in the “Genera Dubia” or second part of the “Plantæ Americanæ.” Mears (1982: 112) associated *Cruzeta* Loeffl. with the *Gomphrenoideae* (*Amaranthaceae*) and noted that it is older than all accepted names in the subfamily except *Gomphrena* L. (1753) and *Iresine* P. Browne (1756), nom. cons. Mears also pointed out that it has been impossible to identify *C. hispanica* Loeffl. with any known species, despite the fact that Lamarck (1786) and Moquin-Tandon (1849) published remarks and opinions on the application of the name. The generic name is potentially destabilizing and nomenclatural stability would be preserved by rejecting both it and its type, *C. hispanica* (see Dorr & Wiersema, 2010).

Arecaceae

***Palma spinosa** Loeffl., *Iter Hispan.*: 252. 1758, *Ibid.*: 88 [252]. 1957; *Reise Span. Länd.*: 326. 1766, ed. 2: 326. 1776; in Bossu, *Trav. N. Amer. Louisiana*: 352. 1771; in Hansen, *Löffling's J.*: 1167. 2008 [non Mill., *Gard. Dict.*, ed. 8: *Palma* no. 3. 1768 = *Acrocomia aculeata* (Jacq.) Lodd. ex Mart., *Hist. Nat. Palm.* 3(8): 286. 1845. Based on *Cocos aculeatus* Jacq., *Select. Stirp. Amer. Hist.*: 278, t. 169. 1763, fide Govaerts & Dransfield, 2005]. Type: not designated. Identity unknown.

Loeffling's name makes *Palma spinosa* Mill. a later homonym, but Miller's name is considered to be a taxonomic synonym of *Acrocomia aculeata* (Jacq.) Lodd. ex Mart. Although relatively few genera of palms found in this region of Venezuela have spines, Loeffling's (1758: 252) description is insufficient to ascertain the identity of his species.

Asteraceae

Melampodium australe Loeffl., *Iter Hispan.*: 268. 1758, *Ibid.*: 104 [268]. 1957; *Linnaeus*, *Sp. Pl.*, ed. 2, 2: 1303. 1763; *Loeffling*, *Reise Span. Länd.*: 346. 1766, ed. 2: 346. 1776; in Bossu, *Trav. N. Amer. Louisiana*: 380. 1771; in Hansen, *Löffling's J.*: 1177. 2008 ≡ *Acanthospermum australe* (Loeffl.) Kuntze, *Revis. Gen. Pl.* 1: 303. 1891. Type: not designated. Additional synonyms given in Blake (1921: 390).

Boraginaceae

Rhamnus cumanensis Loeffl., *Iter Hispan.*: 182. 1758, *Ibid.*: 18 [182]. 1957; *Reise Span. Länd.*: 242. 1766, ed. 2: 242. 1776; in Bossu, *Trav. N. Amer. Louisiana*: 234. 1771; in Hansen, *Löffling's J.*: 1126. 2008 ≡ *Bourreria cumanensis* (Loeffl.) O.E. Schulz in Urb., *Symb. Antill.* 7: 48. 1911 ('*Beureria*'), comb. illeg. [non (DC.) Gürke in Engler & Prantl, *Nat. Pflanzenfam.* 4, Abt. 3a: 87. 1893 ('*Beureria*'). Based on *Ehretia cumanensis* DC., *Prodr.* 9: 511. 1845 (as "*E.? Cumanensis*") = *Tournefortia hirsutissima* L.]. Neotype (designated by Gottschling & Miller, 2007: 740): Venezuela. Nueva Esparta: Isla de Margarita, El Valle, 15 Jul 1988, J.R. Johnston 86 (GH).

= **Bourreria exsucca** Jacq., *Enum. Syst. Pl.*: 14. 1760; *Select. Stirp. Amer. Hist.*: 45, t. 173, fig. 17. 1763 ('*Beureria*') ≡ *Ehretia exsucca* (Jacq.) L., *Sp. Pl.*, ed. 2, 1: 275. 1762. Type: t. 173, fig. 17 in Jacquin, *Select. Stirp. Amer. Hist.*: 1763. [Epitype (designated by Gottschling & Miller, 2007: 740): Colombia. Bolívar: Isla Barú, 10°09'N, 75°41'W, 6 Aug 1985, Zarucchi & Cuadros 3951 (MO)]. Additional synonyms given in Gottschling & Miller (2007: 740).

Gottschling & Miller (2007) considered *Bourreria exsucca* Jacq. (1760: 14) not to be validly published and implied that a validating description for the name was first published in 1763, but a year earlier Linnaeus had already based the combination *Ehretia exsucca* (Jacq.) L. on *B. exsucca* Jacq. (1760), while citing the earlier "*Rhamnus cumanensis* Loeffl. it. 182" in synonymy. Confusion regarding when *B. exsucca* was first published undoubtedly stems from the mistaken belief that Jacquin's description is insufficient, but his two-word diagnosis "fructibus exsuccus" is sufficient to distinguish this species from his other species and the name was validly published in 1760 (McNeill & al., 2006: Art. 32.2).

Although Linnaeus (1762: 275) considered *Rhamnus cumanensis* Loeffl. (1758) and *Bourreria exsucca* Jacq. (1760) to be synonyms, he based the combination *Ehretia exsucca* (Jacq.) L. on the name lacking priority. Jacquin (1763: 45) continued to recognize *B. exsucca* and also cited the older *R. cumanensis* in synonymy. Similarly, Kölpin in Loeffling (1766: 242) tied the two names together, but he placed *E. exsucca* in synonymy under *R. cumanensis*. Schulz (1911) attempted to rectify the situation by proposing a combination in *Bourreria* P. Browne (1756), nom. cons., based on *R. cumanensis*, but his combination is illegitimate as there is an earlier combination in *Bourreria* based on *Ehretia cumanensis* DC. (De Candolle's species was founded on a Humboldt & Bonpland collection from Cumaná, not a Loeffling one). Gaviria (2008: 282, 284) incorrectly followed Schulz (1911).

Capparaceae

***Muco** Loeffl., *Iter Hispan.*: 230, 234. 1758, *Ibid.*: 66 [230], 70 [234]. 1957; *Reise Span. Länd.*: 298, 302. 1766, ed. 2: 298, 302. 1776; in Bossu, *Trav. N. Amer. Louisiana*: 315, 320. 1771; in Hansen, *Löffling's J.*: 1154, 1157. 2008. Type: not designated. Identity unknown.

Dandy (1967) dismissed *Muco* Loeffl. (1758) as a vernacular name, but it conforms to the *ICBN* (McNeill & al., 2006) with respect to the valid formation of generic names. The validating description, however, does not follow the format utilized in the *Genera Plantarum*, ed. 5 (Linnaeus, 1754). Iltis & al. (1996) used the common name "Muco" to find and describe *Capparis muco* Iltis & al. from near Barcelona (Edo. Anzoátegui, Venezuela), which is close to where Loeffling made his observations. Subsequently, Cornejo & Iltis (2008) resurrected *Neocalyptrocalyx* Hutch. (1967) as a replaced name for *Capparis* subg. *Calyptrocalyx* Eichler (1865), non *Calyptrocalyx* Blume (1838), and they transferred *C. muco* and five other species of *Capparis*

L. (1753) to *Neocalyptocalyx*. If their species and *Muco* are the same, then Loeffling's generic name would have priority over *Neocalyptocalyx*. More recently, Ruiz-Zapata (2006: 123) speculated that the “Muco” of Loeffling was the same as *C. stenosepala* Urb., which occurs near Cumaná (Edo. Sucre, Venezuela), and she disputed the relationship of Loeffling's “Muco” to *C. muco* (\equiv *N. muco* (Iltis & al.) Cornejo & Iltis). She (2006: 123) noted that Loeffling (1758: 234) described the fruit pulp as white and argued that her species also had white fruit pulp while *C. muco* (\equiv *N. muco*) had orange fruit pulp. The pulp of the latter, however, is “green to yellowish when ripe” (Iltis & al., 1996: 382) and that of *Neocalyptocalyx* is described as white or orange (Cornejo & Iltis, 2008: 109). More importantly, Loeffling (1758: 234) clearly stated *Muco* was edible and whereas the fruit of *C. stenosepala* is questionably edible (Ruiz-Zapata, 2006: 124) that of *N. muco* is clearly edible (Iltis & al., 1996; Cornejo & Iltis, 2008: 106). Neither Ruiz-Zapata (2006) nor Iltis & al. (1996) considered *Muco* to be a valid generic name and consequently paid no attention to the potentially destabilizing nomenclatural consequences, which can be resolved by rejecting Loeffling's genus name (Dorr & Wiersema, 2010).

In Venezuela, the vernacular name “Muco” also has been applied to *Couroupita guianensis* Aubl. (*Lecythidaceae*) (Pittier, 1926: 302), but inasmuch as Loeffling (1758) indicated that his “Muco” was edible he could not have been describing *Couroupita* Aubl. (1775).

Celastraceae

Bejuco Loeffl., *Iter Hispan.*: 314. 1758; *Reise Span. Länd.*: 404. 1766, ed. 2: 404. 1776; in Bossu, *Trav. N. Amer. Louisiana*: 414. 1771; in Hansen, *Löffling's J.*: 1206. 2008. Type: not designated.

= *Hippocratea* L., *Sp. Pl.*: 1191. 1753. Type: *Hippocratea volubilis* L.

Dandy (1967) dismissed *Bejuco* Loeffl. (1758) as a vernacular name, but it conforms to the *ICBN* (McNeill & al., 2006) with respect to the valid formation of generic names. The genus is accepted by Farr & al. (1979: 188), but it is considered to be a taxonomic synonym of the earlier *Hippocratea* L. (Smith, 1940), a synonymy first proposed by Linnaeus (1762: 50).

“*Bejuco pendulus*” Loeffl. (1758: 314) is listed in IPNI (2010; see also Jackson, 1893: 288), but this is a misinterpretation of the original text that reads “*BEJUCO pendulus, floribus paniculatus*” where punctuation and type setting indicate that this is, in fact, a polynomial.

Combretaceae

Gaura fruticosa Loeffl., *Iter Hispan.*: 248. 1758, *Ibid.*: 84 [248]. 1957; *Reise Span. Länd.*: 320. 1766, ed. 2: 320. 1776; in Bossu, *Trav. N. Amer. Louisiana*: 344. 1771; in Hansen, *Löffling's J.*: 1165. 2008 [non Jacq., *Collectanea* 1: 142. 1787; *Icon. Pl. Rar.* 3(fasc. 2): t. 457. 1789, 3(fasc. 16): 3. 1795 = *Gaura angustifolia* Michx., *Fl. Bor.-Amer.* 1: 226. 1803] \equiv *Combretum fruticosum* (Loeffl.) Stuntz, *U.S. Dept. Agric. Bur. Pl. Ind. Seeds & Pl. Import.* no. 31: 69,

86. 1914. Neotype (designated here): Venezuela, Aragua, San Juan de los Morros, 30 Jan 1922, *Pittier 10161* (US!; iso-, NY).

Additional synonyms given in Exell (1953: 117–118).

When Loeffling (1758: 308) described the genus *Combretum* Loeffl., he did not describe a species. Linnaeus (1762: 496) based *C. laxum* L. (non Jacq.) on Loeffling's (1758: 308) description of the genus. He wrote “*COMBRETUM spicis laxis Loeffl. it. 308,*” and cited as synonyms “*Combretum floribus octandris, spicis laxis secundis. Jacq. amer. 19*” and “*Gaura fruticosa scandens, foliis oppositus. Loeffl. it. 248.*” The former is a reference to *C. laxum* Jacq. (1760: 19) and the latter to *Gaura fruticosa* Loeffl. (1758: 248). Subsequent editions of Loeffling (1766, 1771a, b) cite “*GAURA fruticosa (COMBRETUM laxum p. 308) subscandens ...*” and the cross reference (“p. 308”) is to the page in the original work where *Combretum* was published and not the pertinent page(s) in later editions.

“*Gaura laxa* Loeffl., *It. Hispan.* 248” is cited in IPNI (2010), but this name cannot be derived from the *Iter Hispanicum* (1758). “*Combretum laxum* Loeffl., *It.* 248, 308” also is cited in IPNI (2010), but neither one of the two pages referenced has this binary combination. Both names appear in the original volume of *Index Kewensis* (Jackson, 1893) and we suspect that they are merely early compilation errors.

Euphorbiaceae

**Jahipha* Loeffl., *Iter Hispan.*: 309. 1758; *Reise Span. Länd.*: 397. 1766 (*Jatropha*), ed. 2: 397. 1776; in Bossu, *Trav. N. Amer. Louisiana*: 411. 1771 (*Jatropha*); in Hansen, *Löffling's J.*: 1203. 2008. Type: not designated.

= *Janipha* Kunth in Humboldt & al., *Nov. Gen. Sp.* [qu. & fol.] 2: t. 109. 28 Apr 1817, *Ibid.* [qu] 2: 106, *Ibid.* [fol] 2: 84. 8 Dec 1817. Type: *Janipha aesculifolia* Kunth (\equiv *Manihot aesculifolia* (Kunth) Pohl).

= *Manihot* Mill., *Gard. Dict. Abr.*, ed. 4. 1754. Lectotype (designated by Rogers & Appan, 1973: 20): *Manihot esculenta* Crantz.

Dandy (1967) dismissed *Jahipha* Loeffl. (1758) as a vernacular name, but it conforms to the *ICBN* (McNeill & al., 2006) with respect to the valid formation of generic names. The validating description in the “Appendix ultimus” does not follow the format utilized in the *Genera Plantarum*, ed. 5 (Linnaeus, 1754), but it is remarkably complete. Kölpin in Loeffling (1766) changed the name *Jahipha* to *Jatropha* L. (1753) without altering any other part of Loeffling's original protologue. Although Loeffling did not publish a species when he described the genus *Jahipha*, nor did Kölpin in his translation, subsequent authors incorrectly have attributed the binomial “*Janipha* [sic] *frutescens*” to Loeffling even though “*frutescens*” was merely part of the diagnosis. Jacquin (1763: 256) cited “*Janipha frutescens. Loeffl. hisp. 309*” in synonymy under *Jatropha carthagenensis* Jacq. Likewise, Linnaeus who renamed Jacquin's species as *Jatropha janipha* L., nom. superfl. illeg. (1767a: 126) also cited “*Janipha frutescens. Loeffl. it. 309*” in synonymy.

Kunth (1817) published the generic name *Janipha* Kunth and kept it distinct from *Jatropha*. He made an oblique reference

to *Jahipha* Loeffl. when he published *Janipha loefflingii* Kunth, nom. superfl. illeg., and cited among the synonyms not only “*Jatropha carthaginensis*. Jacq. *Americ.* 256. t. 162. f. 1” (the name he should have adopted), but also “*Jatropha frutescens*. Læfl. it. ed. germ. p. 397” and “*Janipha frutescens*. Læfl. it. 309. (auct. Willd.).” As noted above, neither of the last two names is validly published.

As Loeffling's generic name *Jahipha* (1758) is later than both *Jatropha* L. (1753) and *Manihot* Mill. (1754), it poses no unfavorable nomenclatural consequences. An argument could be made that *Janipha* Kunth (1817) is an illegitimate renaming of *Jahipha*, but the former name was validly published as a monotypic genus on 28 April 1817, when the plate (1817: t. 109) of *Janipha aesculifolia* with analysis (McNeill & al., 2006: Art. 42) appeared, several months ahead of the text containing the other species, which included *Janipha loefflingii*. Because *Jahipha* was then untypified (nor could it ever be typified on *Janipha aesculifolia* anyway), *Janipha* did not include the type of *Jahipha* when published and cannot be superfluous. This false interpretation would have no adverse nomenclatural consequences anyway, as the former name is considered now to be a synonym of *Manihot* (Rogers & Appan, 1973). In their monograph, Rogers & Appan (1973) did not mention or otherwise account for *Jahipha*.

Fabaceae

**Crotalaria espadilla* Loeffl., *Iter Hispan.*: 263. 1758 (*Espadilla*), *Ibid.*: 99 [263]. 1957; *Reise Span. Länd.*: 340. 1766 (*Espadilla*), ed. 2: 340. 1776; in Bossu, *Trav. N. Amer. Louisiana*: 371. 1771 (*Espadilla*); in Hansen, *Löffling's J.*: 1174. 2008 [non Kunth in Humboldt & al., *Nov. Gen. Sp.* [qu] 6: 399, *Ibid.* [fol] 6: 313. 1823 = *Crotalaria stipularia* Desv. in *J. Bot. Agric.* 3: 76. 1814, fide H. Senn, *Rhodora* 41: 332. 1939]. Type: not designated. Identity unknown.

Loeffling's name threatens the later homonym *Crotalaria espadilla* Kunth, which currently is considered to be a taxonomic synonym of *C. stipularia* Desv.

Piscipula erythrina* Loeffl., *Iter Hispan.*: 275. 1758, *Ibid.*: 111 [275]. 1957, nom. nov.; *Reise Span. Länd.*: 354. 1766 (as “*Piscipula (Piscidia) Erythrina*”), ed. 2: 354. 1776; in Bossu, *Trav. N. Amer. Louisiana*: 390. 1771 (as “*Piscipula (Piscidia) Erythrina*”); in Hansen, *Löffling's J.*: 1180. 2008 = *Erythrina piscipula* L., *Sp. Pl.*: 707. 1753 = *Piscidia erythrina* L., *Syst. Nat.*, ed. 10, 2: 1155. 1759, nom. illeg.; Jacquin, *Enum. Syst. Pl.*: 27. 1760; *Select. Stirp. Amer. Hist.*: 209. 1763; Linnaeus, *Sp. Pl.*, ed. 2, 2: 993. 1763 = *Piscidia piscipula*** (L.) Sarg., *Gard. & Forest* 4: 436. 1891. Lectotype (selected by Rudd, 1969: 486): Sloane, *Voy. Jamaica* 2: 39, t. 176, f. 4, 5. 1725.

Additional synonyms given in Rudd (1969: 486).

Loeffling (1758: 275) proposed a new name for *Erythrina piscipula* L., which he realized correctly was not a species of *Erythrina* L. (1753). The transfer of the Linnaean epithet is contravened by the *ICBN* (McNeill & al., 2006: Art. 23.4) as

it would create the tautonym “*Piscipula piscipula*.” Loeffling's nomenclatural transfer and nomen novum stand apart from the actual identity of the plant that he possessed, which Rudd (1969) suggests was not what we call *Piscidia piscipula* (L.) Sarg., but probably *Piscidia carthaginensis* Jacq. In fact, *Piscidia carthaginensis* is the only species of *Piscidia* L. (1759) found in Venezuela (see Aymard, 2008).

The homotypic genus *Piscidia* L. (1759) is conserved over *Ichthyomethia* P. Browne (1756) and the unlisted but homotypic *Piscipula* Loeffl. (1758) (see McNeill & al., 2006: 379).

***Tepuguipe** Loeffl., *Iter Hispan.*: 262. 1758, *Ibid.*: 98 [262]. 1957; *Reise Span. Länd.*: 338. 1766, ed. 2: 338. 1776; in Bossu, *Trav. N. Amer. Louisiana*: 369. 1771; in Hansen, *Löffling's J.*: 1173. 2008. Type: not designated. Identity unknown.

Dandy (1967) dismissed *Tepuguipe* Loeffl. (1758) as a vernacular name, but it conforms to the *ICBN* (McNeill & al., 2006) with respect to the valid formation of generic names. *Tepuguipe* is not listed in the index to the “*Plantæ Americanæ*,” but following “*DIADELPHIAE*” the entry “*Frutex* 139, 187” leads to *Tepuguipe* (i.e., “139. TEPUGUIPE”) and to what is presumed to be a related taxon (i.e., “187. ARBOR foliis pinnatis oppositis, floribus spicatis luteis diadelphis”) with yellow (versus purple or blue) flowers. Jussieu in Cuvier (1828: 109) recognized *Tepuguipe* as a papilionate legume, but he could not associate it with any known genus.

Lamiaceae

***Mastranzo** Loeffl., *Iter Hispan.*: 230, 272. 1758, *Ibid.*: 66 [230], 108 [272]. 1957; *Reise Span. Länd.*: 298, 350. 1766, ed. 2: 298, 350. 1776; in Bossu, *Trav. N. Amer. Louisiana*: 315, 385. 1771; in Hansen, *Löffling's J.*: 1154, 1179. 2008. Type: not designated. Identity unknown.

Dandy (1967) dismissed *Mastranzo* Loeffl. (1758) as a vernacular name, but it conforms to the *ICBN* (McNeill & al., 2006) with respect to the valid formation of generic names. The validating description, however, does not follow the format utilized in the *Genera Plantarum*, ed. 5 (Linnaeus, 1754). In Venezuela, the vernacular name “Mastranto” is applied to both *Hyptis suaveolens* Poit. (Pittier, 1926: 295; Schnee, 1973: 468) and *Marrubium vulgare* L. (Schnee, 1973: 468), the latter species introduced. Loeffling's description makes it reasonable to assume that the genus *Mastranzo* belongs in the *Lamiaceae*, but the description lacks the detail required to determine which genus. *Marrubium* L. (1753) has priority over *Mastranzo* Loeffl. (1758) whereas *Hyptis* Jacq. (1787), nom. cons., conserved against *Mesosphaerum* P. Browne (1756), nom. rej., and *Condea* Adans. (1763), nom. rej. (see McNeill & al., 2006: 347), was published later than *Mastranzo*.

Malvaceae

Ayenia sidiformis Loeffl., *Iter Hispan.*: 257. 1758 (*Sidæformis*), *Ibid.*: 93 [257]. 1957; *Reise Span. Länd.*: 331. 1766

(‘*sidæformis*’), ed. 2: 331. 1776; in Bossu, Trav. N. Amer. Louisiana: 360. 1771 (‘*sidæformis*’); in Hansen, Löffling’s J.: 1170. 2008. Type: not designated.
= *Ayenia tomentosa* L., Syst. Nat., ed. 10, 2: 1247. 1759. Type: not designated.

Ayenia L. (1756) was described from material Linnaeus cultivated in Sweden. In describing this genus, Linnaeus did not describe a species although it is clear he grew the plant from seed he received from Philip Miller (1691–1771) of Chelsea, which in turn can be traced to Peru (see Cristóbal, 1960: 9). Subsequently, Loeffling (1758: 199–201) proposed three species of *Ayenia* in the first part of the “Plantæ Americanæ,” but no names were validly published as the species were given phrase names only. All three were described from Venezuela; the first (“1”) was said to be “*Habitat juxta CUMANÁ ad viam versus Ipune*”; the second (“2”) was “*Habitat in depressis silvis juxta paludem, citra Fluvium UNARE*”; and the third (“3”) was given no precise locality. The name of a fourth species, *A. sidiformis* Loeffl., was validly published in a different part of the “Plantæ Americanæ,” a list of the plants that Loeffling had collected in Venezuela in December 1754.

When Linnaeus (1759: 1247) revisited the genus *Ayenia*, he recognized three (not four) species. *Ayenia pusilla* L. was associated with several elements: the plant Linnaeus described when naming the genus in 1756, the second (“2”) species in *Iter Hispanicum* (1758), and descriptions and figures published by Miller (1760: 79, t. 118) and Sloane (1707: t. 132, f. 2). Much later when Cristóbal (1960: 190–193) revised the genus *Ayenia*, she restricted *A. pusilla* to the Peruvian elements of the protologue and asserted that the *Iter Hispanicum* element could not be identified without original material. *Ayenia tomentosa* L. was associated with the third (“3”) species in the *Iter Hispanicum* and *A. magna* L. was associated with the first (“1”) species in the same work. Nothing was stated by Linnaeus regarding *A. sidiformis*.

In *Species Plantarum*, ed. 2, Linnaeus (1763: 1354) treated *Ayenia* again, recognizing the same three species that he did four years earlier: *A. pusilla*, *A. tomentosa*, and *A. magna*. This time, however, he very cryptically placed *A. sidiformis* in synonymy under *A. tomentosa* by writing “*Læfl. it. 200; 257*.” The latter number is the page on which *A. sidiformis* was published. Given that the former name was published one year before the latter, priority dictates that Linnaeus should have adopted *A. sidiformis* when he synonymized the two names.

We are convinced that Linnaeus was correct in considering *Ayenia tomentosa* and *A. sidiformis* to be synonyms as only two species of *Ayenia* have been collected in the region of Venezuela traversed by Loeffling. One of these two is *A. magna*, which is readily distinguished by its cordate leaf base, a character shared by no other species of *Ayenia* in Venezuela. The oldest available name for the other species occurring in the parts of Venezuela visited by Loeffling is *A. sidiformis*, but adopting it would be destabilizing nomenclaturally since *A. tomentosa* has almost universally been used for the last two hundred years and it was the name adopted by Cristóbal (1960: 208–213, t. 75) in her revision of the genus. Consequently, we (Dorr & Wiersema, 2010) propose that the name *A. sidiformis* be rejected.

**Waltheria melochioides* Loeffl., *Iter Hispan.*: 272. 1758 (‘*Melochioides*’), *Ibid.*: 108 [272]. 1957; Reise Span. Länd.: 350. 1766 (‘*Melochioides*’), ed. 2: 350. 1776; in Bossu, Trav. N. Amer. Louisiana: 385. 1771 (‘*Melochioides*’); in Hansen, Löffling’s J.: 1179. 2008. Neotype (designated here): Herb. Hermann 3: 5, no. 244 (BM-000621807).

≡ *Waltheria indica* L., Sp. Pl.: 673. 1753. Lectotype (designated by Verdcourt, 1995: 418): Herb. Hermann 3: 5, no. 244 (BM-000621807).

Additional synonyms given in Cheek & Dorr (2007: 129).

We have chosen to typify *Waltheria melochioides* Loeffl. with material that makes the name a synonym of *W. indica* L. as the former name had potential to destabilize other names in the genus since only *W. americana* L. and *W. indica*, both of which were published in the *Species Plantarum* (Linnaeus, 1753), antedate it.

Myrtaceae

**Psidium sylvestre* Loeffl., *Iter Hispan.*: 263. 1758, *Ibid.*: 99 [263]. 1957; Reise Span. Länd.: 339. 1766, ed. 2: 339. 1776; in Bossu, Trav. N. Amer. Louisiana: 371. 1771; in Hansen, Löffling’s J.: 1174. 2008. Type: not designated.

Identity unknown.

The vernacular name, “*Guajava de monte*,” cited by Loeffling (1758) for this species is very similar to “*Guayabito de monte*,” which Pittier (1926: 250) stated is the vernacular name used near Cumaná for *Eugenia punicifolia* (Kunth) DC. Identification of Loeffling’s species, however, cannot be based on this coincidence and its identity remains unknown.

Polygonaceae

Triplaris Loeffl., *Iter Hispan.*: 229, 256. 1758, *Ibid.*: 65 [229], 92 [256]. 1957; Reise Span. Länd.: 297, 330. 1766, ed. 2: 297, 330. 1776; in Bossu, Trav. N. Amer. Louisiana: 314, 358. 1771; in Hansen, Löffling’s J.: 1153, 1170. 2008. Type: *Triplaris americana* L.

Dandy (1967) considered *Triplaris* Loeffl. to be a nomen nudum. Farr & al. (1979: 1800) recognized the genus, but attributed the name to Linnaeus (1759; “Loeffling ex Linnaeus, Syst. Nat., ed. 10, 2: 881, 1360. Mai–Jun 1759”). Nonetheless, *Triplaris* appears to have been validly published by Loeffling as he provided a description (1758: 256) of the flowers “*Calyce magno, trifido. Cor nulla, Triandra, Trigyna*” even though this description does not follow the format utilized in the *Genera Plantarum*, ed. 5 (Linnaeus, 1754). Brandbyge (1986), who monographed the genus, accepted the earlier date and place of publication but contrary to tradition ascribed authorship to “Loeffl. ex L.” *ING* (2010) reflects Brandbyge’s treatment except it ascribes authorship to Loeffling alone. Loeffling’s description was the sole basis for *T. americana* L. (1759: 881), which, if such a description did not exist, would then be validly published together with the genus (McNeill & al., 2006: Art. 42.1). Dugand (1960: 388) designated a Linnaean specimen (LINN 108.1) as “type” of *T. americana*, but he should have chosen a Loeffling specimen (McNeill & al., 2006: Art. 7.7).

If the source of this Linnaean specimen, which is unknown, does not trace back to Loeffling, then the Linnaean specimen must be considered a neotype (McNeill & al., 2006: Art. 9.8).

Rubiaceae

**Edechia* Loefl., *Iter Hispan.*: 229 ('*Edechi*'), 259 ('*Edechi*'), 271 ('*Edechi*'), 306. 1758, *Ibid.*: 65 [229], 95 [259], 107 [271]. 1957; in Hansen, Löffling's J.: 1153, 1171, 1178, 1202. 2008. Type: not designated.

= *Laugieria* Jacq., *Enum. Syst. Pl.*: 2, 16. 1760; *Select. Stirp. Amer. Hist.*: 64. 1763 Type: *Laugieria odorata* Jacq. (= *Guettarda odorata* (Jacq.) Lam.)

= *Guettarda* L., *Sp. Pl.*: 991. 1753. Type: *Guettarda speciosa* L. Indices (e.g., Post & Kuntze, 1903: 192; Farr & al., 1979; IPNI, 2010; Tropicos, 2010) report one or the other, or both, of the orthographic variants used in the *Iter Hispanicum* (1758). Dandy (1967), argued that as "*Edechi*" (Loeffling, 1758: 229, 259, 271) is a vernacular name it contravened the rules for the formation of generic names laid down by Linnaeus, but when Latinized to "*Edechia*" (Loeffling, 1758: 306) the name was acceptable. As noted above, the *ICBN* (McNeill & al., 2006) does not allow us to make such a distinction. The spelling "*Edechi*" is used in the "*Plantæ Americanæ*" and "*Edechia*" in the "*Appendix ultimus*." Article 61.3 of the *ICBN* (McNeill & al., 2006) provides some guidance on deciding the correct spelling in such cases using Art. 60, but no rules or recommendations in this Article seem to apply. However, Linnaeus (1762: 276) adopted one of the variants ("*Edechia*") and rejected the other not by citing its spelling, but by citing the pages where it was employed, so his spelling would seem to be correct. Two of the three descriptions provided by Loeffling (1758: 271, 306) follow the format utilized in the *Genera Plantarum*, ed. 5 (Linnaeus, 1754) with only minor differences. The third description (Loeffling, 1758: 259) is similar but not formatted in the same way. Each entry references one or the other of the four entries. In particular, the description of *Edechia* refers to the two descriptions in the "*Plantæ Americanæ*" as "1. sp. *inermis*. p. 271" and "2. sp. *spinosa*. p. 259."

Identity of the name with *Laugieria* Jacq. (1760) is derived from Linnaeus (1762: 276), who in treating *L. odorata* Jacq. cited "*Edechia* Læfl. it. 306, 271, 259" in synonymy. In the German translation (Kölpin in Loeffling, 1766), in two of the four instances where *Edechi* or its variant *Edechia* are noted, the name is associated explicitly with *Laugieria* (p. 349, as "155. EDECHI, 133. LAUGIERIA *odorata*" and p. 393, as "EDECHIA ad Curataquiche. *Laugieria odorata*") and in the other two indirectly (p. 297, as "*Edechi*" in an index and p. 334 as "133. EDECHI (155)" in a cross-referenced description).

Post & Kuntze (1903) wrote "*Edechi* & *Edechia* Loefl. = *Matthiola*" and associated Loeffling's genus with *Matthiola* L. (1753), nom. rej., non R. Br. (1812), nom., typ. et orth. cons., the former generic homonym now considered a synonym of *Guettarda* L. (1753).

**Edechia inermis* Loefl., *Iter Hispan.*: 271, 306. 1758, *Ibid.*: 107 [271]. 1957; *Reise Span. Länd.*: 349, 394. 1766, ed. 2:

349, 394. 1776; in Bossu, *Trav. N. Amer. Louisiana*: 383, 407. 1771; in Hansen, Löffling's J.: 1178, 1202. 2008. Type: not designated.

Identity unknown.

**Edechia spinosa* Loefl., *Iter Hispan.*: 259, 306. 1758, *Ibid.*: 95 [259]. 1957; *Reise Span. Länd.*: 334, 394. 1766, ed. 2: 334, 394. 1776; in Bossu, *Trav. N. Amer. Louisiana*: 364, 408. 1771; in Hansen, Löffling's J.: 1171, 1202. 2008. Type: not designated.

Identity unknown.

Loeffling (1758) plainly identified *Edechia inermis* Loefl. and *E. spinosa* Loefl. as species, and provided each binomial with an epithet and a reference to a description. Both species were mentioned cryptically by Linnaeus (1762: 276) in synonymy under *Laugieria odorata* Jacq. as he wrote "*Edechia* Læfl. it. 306, 271, 259." Jacquin (1763: 64) also presented the same synonymy, but with a variant spelling for the genus (i.e., "*Edechi*. Læfl. hisp. 259. 271. & 306"). Later, Linnaeus (1767b: 177) listed a "*Variat spinosa et inermis*" under *Laugieria* [sic] *odorata*. This same treatment continued to be reflected in Willdenow (1798: 1081–1082) and Lamarck (1792a: 433), but the latter dismissed the varieties mentioning that, according to Jacquin, both spineless and spiny forms appear in the same species. On the same day that Lamarck's treatment in the *Encyclopédie* appeared (13 Feb 1792), Lamarck (1792b: 219) transferred *L. odorata* to *Guettarda odorata* (Jacq.) Lam. This latter name is now in current use for a strictly Caribbean species, although formerly it was applied to a related northern South American species now known as *G. divaricata* (Humb. & Bonpl. ex Roem. & Schult.) Standl., based on *Dicrobotryum divaricatum* Humb. & Bonpl. ex Roem. & Schult. *Edechia spinosa* and *E. inermis* have priority over both Jacquin's and Roemer & Schultes's basionyms and no barrier exists to their adoption in *Guettarda*. We (Dorr & Wiersema, 2010) therefore propose that both Loeffling names be rejected to preserve current usage.

**Spermacoce spinosa* Kölpin in Loeffling, *Reise Span. Länd.*: 264. 1766, ed. 2: 264. 1776, nom. illeg.; in Bossu, *Trav. N. Amer. Louisiana*: 267. 1771 [non L., *Sp. Pl.*, ed. 2: 148. 1762, nec Jacq., *Enum. Syst. Pl.*: 12. 1760; *Select. Stirp. Amer. Hist.*: 21. 1763] = **Spermacoce suffruticosa* L., *Syst. Nat.*, ed. 10, 2: 890. 1759. Type: not designated.

Loeffling (1758: 201) originally published this name with a polynomial ("*SPERMACOCE suffruticosum, foliis ...*") and only in translation (Kölpin in Loeffling, 1766: 264) is it given a binomial ("*SPERMACOCE spinosa suffruticosa, foliis ...*"). However, in the eight year interval between the original publication and its German translation, Linnaeus (1759: 890) published *Spermacoce suffruticosa* L., with a direct reference to Loeffling's polynomial. For whatever reason this Linnaean name is not in IPNI (2010), being replaced by "*Spermacoce suffruticosa* Loefl., *It. Hisp.* 201"; a truncated polynomial masquerading as a binomial. The Linnaean name seems to have been completely ignored by later botanists, as Linnaeus (1762: 148) later replaced it with *S. spinosa*, citing "*Spermacoce*

suffruticosum. *Læfl. it.* 201,” the sole basis for his earlier *S. suffruticosa*, and “Spermacoce spinosa. *Jacq. amer.* 12.” Jacquin’s entry (1760: 12) has only a single word description “spinosa,” but this is presumably enough for valid publication. If the two names are synonymous, as implied by Linnaeus, *S. suffruticosa* L. is the earlier one. Jarvis (2007: 868) does list *S. suffruticosa* L. as an accepted, untypified name, but the name is not in Andersson (1992), who lists only *S. spinosa* L. (1762: 148; “Doubtful, see Steyermark, Mem. N.Y. Bot. Gard. 23: 814. 1972”) and *S. spinosa* Jacq. (1763: 21; “= *Machaonia havanensis*” (Jacq.) Alain, based on *S. havanensis* Jacq. in J.F. Gmelin, Syst. Nat. 2: 234. 1791). Jacquin’s species, described from Cuba, cannot be transferred now to *Machaonia* Bonpl. (1808) [1806] due to the existence of the earlier *M. spinosa* Cham. & Schtdl. Whether or not *S. spinosa* sensu L. (1762) equates to *S. spinosa* Jacq. (1760) depends on valid publication of the earlier name; Jacquin’s expanded 1763 treatment of this name makes no reference to Linnaeus. The status of *S. suffruticosa* L., which must apply to a Venezuelan plant, is unknown.

Grisebach (1864: 349) cited “Spermacoce spinosa, *Læfl. (non Jacq., non Sw.)*” as a synonym of *Diodia sarmentosa* Sw. (= *Diodella sarmentosa* (Sw.) Bacigalupo & E.L. Cabral) and stated that neither Loeffling’s nor Swartz’s plant are spiny. Since the binomial “*Spermacoce spinosa*” does not appear in the original *Iter Hispanicum* (1758), it appears that, in fact, Grisebach cited *S. spinosa* Kölpin (Loeffling, 1766). If Grisebach’s synonymy is correct, then, on the basis of priority, *S. suffruticosa* L. also threatens *D. sarmentosa*. Current usage can be preserved by rejecting the Linnaean name (Dorr & Wiersema, 2010).

Rutaceae

Moniera Loeffl., *Iter Hispan.*: 176 (*‘Monieria’*), 197. 1758, Ibid.: 12 [176], 33 [197]. 1957; Reise Span. Länd.: 236 (*‘Monieria’*), 259 (*‘Monieria’*). 1766, ed. 2: 236, 259. 1776; in Bossu, Trav. N. Amer. Louisiana: 225 (*‘Monieria’*), 260 (*‘Monieria’*). 1771; in Hansen, Löffling’s J.: 1123, 1134. 2008, hom. illeg. [non P. Browne, Civ. Nat. Hist. Jamaica 269. 1756, nom. rej.] = *Ertela* Adans., Fam. Pl. 2: 358. 1763. Type: *Moniera trifolia* L. (= *Ertela trifolia* (L.) Kuntze).

Loeffling (1758) published the genus *Moniera* without publishing a species. The first species described in this genus, *M. trifolia* L. (1759), is commonly listed (Kallunki, 2005; IPNI, 2010) with the generic spelling used by Linnaeus (1759: 1153, 1375, viz. “*Monnieria*”). Linnaeus, however, cited “*Monnieria. Læfl. hisp. 197*” under his *M. trifolia*, so his spelling is clearly an orthographic variant. Most indices, with the exception of Jackson (1894: 257; see also IPNI, 2010) have overlooked the fact that Loeffling (1758: 176) also spelled the genus “*Monieria*” in the generic index to the “*Plantæ Americanæ*.” Because two variant spellings appeared in the protologue, Art. 61.3 of the *ICBN* (McNeill & al., 2006) indicates that “the one that conforms to the rules and best suits the recommendations of Art. 60 is to be retained.” Judging from the spelling he adopted for this genus, Linnaeus must have assumed the name commemorated Louis Guillaume Le Monnier (1717–1799). He had similarly

corrected the spelling of the independent *Moniera* P. Browne (*Plantaginaceae*) when adopting it for a specific epithet first in *Lysimachia* L. (1756) and later in *Gratiola* L. (1759), but Browne (1756) had indicated that Bernard de Jussieu (1699–1776), a correspondent of Linnaeus of whom Le Monnier was a pupil, had coined his name. No such connection can be made between Le Monnier and Loeffling’s use of *Moniera*, as Loeffling gave no clue to the source of this name. Even if we speculate such a connection, as does *TL-2* (Stafleu & Cowan, 1979: 842), given Art. 60.3 and Rec. 60B.1(b) there is no real basis under Art. 60 for the orthographic correction imposed by Linnaeus or a choice between Loeffling’s two spellings. However, because both Kölpin in Loeffling (1766) and Forster (1771a,b) consistently adopted the spelling “*Monieria*,” although without explicitly indicating the alternative “*Moniera*,” a case could be made under Art. 61.3 (last part) that this choice should be followed. If indeed Linnaeus may have prepared the index, as we speculated earlier, one could also argue that only “*Moniera*” was intended by Loeffling.

Some standard indices consider *Ertela* Adans. (1763) to be a synonym of “*Monnieria*” (Mabberley, 2008: 317, 554) or “*Monnieria*” (Stevens, 2001 onwards) Loeffl. (1758), but since Loeffling’s name is a later (para?) homonym of *Moniera* P. Browne (1756), nom. rej., it seems best, in the absence of a decision under Art. 53.5 indicating otherwise, to adopt *Ertela*. In fact, the description of *Ertela* Adans. (1763: 358, 555, 578) cites only “*Monnieria. Lin. | Læfl. hisp. 197*” (p. 358) as a synonym, and in the indices Adanson also states “*Monnieria. Læfl. Lin.*” (p. 555) and “*Monnieria. Læfl. V. Ertela*” (p. 578). Thus, *Ertela* must have the same type as *Moniera* Loeffl.

Salicaceae

**Samyda parviflora* Loeffl., *Iter Hispan.*: 260. 1758, Ibid.: 96 [260]. 1957; Reise Span. Länd.: 336. 1766, ed. 2: 336. 1776; in Bossu, Trav. N. Amer. Louisiana: 366. 1771; in Hansen, Löffling’s J.: 1172. 2008 [non L., Syst. Veg., ed. 10, 2: 1025. 1759, nom. illeg.]. Type: not designated. Identity unknown.

Samyda parviflora L. (1759: 1025) is a later homonym of *S. parviflora* Loeffl. (1758: 260). Nonetheless, when Linnaeus (1762: 557) revisited this species he listed the earlier Loeffling name as a synonym of his later homonym. Linnaeus’s taxonomic decision must have been based on the descriptions alone as there were no Loeffling specimens from Venezuela available to him. Sleumer (1980: 345) considered *S. parviflora* Loeffl. (1758) to be a doubtful synonym of *Casearia decandra* Jacq. (1760), ascribing authorship of the former name to “Loeffl. ex L.” Kiger (1984: 456) considered *S. parviflora* Loeffl. (1758) to be a “nom. ambig.” and thought it to be either a synonym of *C. decandra* or *C. sylvestris* Sw. The present *ICBN* (McNeill & al., 2006) does not recognize nomen ambiguum and because of priority Loeffling’s name continues to threaten one or the other of these two species of *Casearia* Jacq. (1760). Zmarzty & Fernández (2008) considered *S. parviflora* Loeffl. (also ascribing authorship to “Loeffl. ex L.”) to be a synonym of *C. decandra*, a subtle change from Sleumer’s (1980) argument and one

that should have forced them to adopt the name published by Loeffling (McNeill & al., 2006: Art. 11.4). The same incorrect synonymy and author ascription is given in *Tropicos* (2010).

Kiger (1984: 458) interpreted *Samyda parviflora* Sessé & Moc. to be an independently published name (and later homonym of *S. parviflora* L.), but McVaugh (2000: 249) considered this to be unlikely and thought Sessé & Mociño (1894) merely omitted the authority (i.e., Linnaeus) for the name they used. Material with this name in the Sessé and Mociño herbarium was determined to be *Casearia sylvestris* (McVaugh, 2000: 249). IPNI (2010) also lists “*Samyda parviflora* Poir., *Encycl.* (Lamarck) 6(2): 491. 1805 [28 Aug 1805] = *Casearia sylvestris*,” but examination of the reference cited indicates that the name accepted is *S. parviflora* L., based on “*Linn. Spec. Plant.* vol. 1. pag. 557” (i.e., Linnaeus, 1762: 557) and among the synonyms cited is “*Lœfl. Iter*, 260,” which is the earlier *S. parviflora* Loeffl. (1758). The potential for *S. parviflora* Loeffl. to destabilize one or another name in *Casearia* led us (Dorr & Wiersema, 2010) to propose the rejection of this name.

Salviniaceae

**Salvinia michelii* Loeffl., *Iter Hispan.*: 281. 1758 (*‘Michelii’*), *Ibid.*: 117 [281]. 1957; *Reise Span. Länd.*: 361. 1766 (*‘Michelli’*), ed. 2: 361. 1776; in Bossu, *Trav. N. Amer. Louisiana*: 400. 1771 (*‘Michelli’*); in Hansen, *Löffling’s J.*: 1184. 2008. Neotype (designated here): *Herb. Linn.* No. 1254.1 (LINN).

≡ *Salvinia natans* (L.) All., *Fl. Pedem.* 2: 289. 1785 [based on *Marsilea natans* L., *Sp. Pl.*: 1099. 1753]. Lectotype (designated by Bobrov, 1984: 20): *Herb. Linn.* No. 1254.1 (LINN).

In the index (Loeffling, 1758: 230) to the “*Plantæ Americanæ*,” the entry for this species is “*Marsilea* 195.” In the text (Loeffling, 1758: 281) it is “195. SALVINIA *Michelii* copiose.” This conflict in generic placement probably can be attributed to Linnaeus as editor. Linnaeus (1763: 1562) later placed *Salvinia michelii* in synonymy under *Marsilea natans* L., which is not surprising as the lectotype of *M. natans* was labeled “*Salvinia Michelii* ...” by Jean François Seguiet (1703–1784) from whom Linnaeus acquired the specimen. Kōlpin in Loeffling (1766) listed the earlier *M. natans* as a synonym of the later *S. michelii* (i.e., “SALVINIA *Michelii* (MARSILEA *natans*) ...”).

Symplocaceae

**Cofer* Loeffl., *Iter Hispan.*: 309. 1758; *Reise Span. Länd.*: 397. 1766, ed. 2: 397. 1776; in Bossu, *Trav. N. Amer. Louisiana*: 412. 1771; in Hansen, *Löffling’s J.*: 1204. 2008. Type: not designated.

= *Symplocos* Jacq., *Enum. Syst. Pl.*: 5, 24. 1760. Type: *Symplocos martinicensis* Jacq.

Cofer Loeffl. (1758) has priority over *Symplocos* Jacq. (1760), but Linnaeus (1762: 747) placed the former name in synonymy under the latter one. This was noted indirectly in the German (Loeffling, 1766: 397) and English (Loeffling, 1771a: 412) translations of the *Iter Hispanicum* (1758), both of which

cite *S. martinicensis* Jacq. (1760: 5, 24) in synonymy under *Cofer* (i.e., “COFER Indis Pirituensibus vocata, frutex altior, fol. oblongis. SYMPLOCOS *martinicensis*”). Jussieu (1789: 157) accepted Linnaeus’s generic synonymy, but expressed doubt. Kuntze (1891: 409) based *Eugeniodes* Kuntze on the pre-starting point “*Eugenioides*” L. (1747) and cited both *Cofer* and *Symplocos* as synonyms. Dandy (1967) dismissed *Cofer* as a vernacular name, but since Loeffling (1758) provided a validating description and the generic name conforms to the *ICBN* (McNeill & al., 2006) Dandy’s analysis does not resolve the nomenclatural threat *Cofer* presents to the large and widely distributed *Symplocos*. The electronic version of *ING* (2010), but not the print one (Farr & al., 1979), recognizes *Cofer*, which otherwise generally has been ignored by standard indices.

Incertae sedis

**Corazon* Loeffl., *Iter Hispan.*: 232, 305. 1758, *Ibid.*: 68 [232]. 1957; *Reise Span. Länd.*: 301, 392. 1766, ed. 2: 301, 392. 1776; in Bossu, *Trav. N. Amer. Louisiana*: 318, 405. 1771; in Hansen, *Löffling’s J.*: 1156, 1201. 2008. Type: not designated.

Dandy (1967) dismissed *Corazon* Loeffl. (1758) as a vernacular name, but it conforms to the *ICBN* (McNeill & al., 2006) with respect to the valid formation of generic names. It is accepted by Farr & al. (1979). In Venezuela, “*Corazón*” is the vernacular name for *Annona reticulata* L. (*Annonaceae*) (Pittier, 1926: 192), a species thought to be native to the West Indies. The description of *Corazon*, however, cannot be reconciled with that of *Annona* L. as Loeffling placed the former in *Triandria* while Linnaeus (1753: 536) included the latter genus in his *Polyandria*. In addition, Loeffling (1758: 232) described his genus as herbaceous while *Annona* L. is arboreous.

The name *Corazon* is not included in the index to the “*Plantæ Americanæ*,” but following “*TRIANDRIA*” the entry “*Obscura* 36” leads to “36. CORAZON herba triandra, facie Atriplicis.” A validating description is provided in the “*Appendix ultimus*” (Loeffling, 1758: 305) following the format utilized in the *Genera Plantarum*, ed. 5 (Linnaeus, 1754). Also, in the index (1758: 229) “*Celosia* 8, 9, 20,” an entry following “*PENTANDRIA*,” leads to “9. Alia vocata CORAZON, flore apetalò quadridentato triandro monogyno.” This suggests that Loeffling encountered more than one plant called “*Corazon*,” but his validating description only applies to the genus classified in Linnaeus’s *Triandria* and not this species placed in *Pentandria*.

**Critta* Loeffl., *Iter Hispan.*: 229, 236. 1758, *Ibid.*: 65 [229], 72 [236]. 1957; *Reise Span. Länd.*: 297, 306. 1766, ed. 2: 297, 306. 1776; in Bossu, *Trav. N. Amer. Louisiana*: 314, 325. 1771; in Hansen, *Löffling’s J.*: 1154, 1158. 2008. Type: not designated.

The name *Critta* Loeffl. (1758) is included among the “*DIDYNAMIA*” in the index to the “*Plantæ Americanæ*,” but the name is set in italic type. The validating description (Loeffling, 1758: 236) is brief but sufficient. It, however, does not follow the format used in the *Genera Plantarum*, ed. 5 (Linnaeus, 1754).

***Deredamo** Loefl., *Iter Hispan.*: 230 ('*Derredamo*'), 250. 1758, *Ibid.*: 66 [230], 86 [250]. 1957; *Reise Span. Länd.*: 298 ('*Derredamo*'), 224 [sic, i.e. 323]. 1766, ed. 2: 298, 224 [sic, i.e., 323]. 1776; in Bossu, *Trav. N. Amer. Louisiana*: 315 ('*Derredamo*'), 349. 1771; in Hansen, *Löffling's J.*: 1154, 1166. 2008. Type: not designated.

Dandy (1967) dismissed *Deredamo* Loefl. (1758) as a vernacular name, but it conforms to the *ICBN* (McNeill & al., 2006) with respect to the valid formation of generic names. The validating description (Loeffling, 1758: 250), however, does not follow the format used in the *Genera Plantarum*, ed. 5 (Linnaeus, 1754). In the index to the "Plantæ Americanæ" (Loeffling, 1758: 230) the generic name is spelled *Derredamo*.

***Ipotaraguapin** Loefl., *Iter Hispan.*: 230 ('*Ipotaragua*'), 270. 1758, *Ibid.*: 66 [230], 106 [270]. 1957; *Reise Span. Länd.*: 298 ('*Ipotaragua*'), 348. 1766, ed. 2: 298, 348. 1776; in Bossu, *Trav. N. Amer. Louisiana*: 315 ('*Ipotaraga*'), 342. 1771; in Hansen, *Löffling's J.*: 1154, 1178. 2008. Type: not designated.

Jussieu (1789: 446) accepted *Ipotaraguapin* Loefl. (1758), but was unable to assign it to a family. Later, Jussieu in Cuvier (1821: 615–616) suggested that the genus belonged in the *Rubiaceae* near *Canthium* Lam. (1785). Dandy (1967) dismissed *Ipotaraguapin* as a vernacular name, but it conforms to the *ICBN* (McNeill & al., 2006) with respect to the valid formation of generic names. The validating description (Loeffling, 1758: 270), however, does not follow the format used in the *Genera Plantarum*, ed. 5 (Linnaeus, 1754). In the index to the "Plantæ Americanæ" (Loeffling, 1758: 230) the generic name is spelled *Ipotaragua*.

***Mahoma** Loefl., *Iter Hispan.*: 309. 1758; *Reise Span. Land.* 397. 1766, ed. 2: 397. 1776; in Bossu, *Trav. N. Amer. Louisiana*: 411. 1771; in Hansen, *Löffling's J.*: 1203. 2008. Type: not designated.

The description of this genus is spare and it does not follow the format used in the *Genera Plantarum*, ed. 5 (Linnaeus, 1754), but it nonetheless appears to be a validating description. *Mahoma* Loefl. (1758) may be a genus of *Fabaceae* ("arbor diadelpha") or possibly *Polygalaceae*.

Menais Loefl., *Iter Hispan.*: 306. 1758; Linnaeus, *Sp. Pl.*, ed. 2, 1: 251. 1762; *Gen. Pl.*, ed. 6: 95. 1764; Loeffling, *Reise Span. Länd.*: 393. 1766, ed. 2: 393. 1776; in Bossu, *Trav. N. Amer. Louisiana*: 406. 1771; in Hansen, *Löffling's J.*: 1201. 2008. Type: *Menais topiaria* L.

In his treatment of the genera of *Boraginaceae*, Bentham (1876: 838) included *Menais* Loefl. (1758) among the "Genera dubia aut exclusa" (viz., "...calyx 3-phyllus foliolis membranaceis concavis in nullis Boragineis adhuc observatus est"). Nonetheless, Jackson (1894: 205) and Farr & al. (1979: 1068), both of whom accepted *Menais*, placed it in the *Boraginaceae*. Jarvis (2007: 665) listed *M. topiaria* L. (1762) as an accepted, untypified name that he also included in the *Boraginaceae*. However, neither the genus nor species was noted by Gaviria (2008), perhaps because their identities have been problematic.

We (Dorr & Wiersema, 2010) propose that the genus name and the name of its type species be rejected.

***Paramini** Loefl., *Iter Hispan.*: 230, 264. 1758, *Ibid.*: 66 [230], 100 [264]. 1957; *Reise Span. Länd.*: 298, 340. 1766, ed. 2: 298, 340. 1776; in Bossu, *Trav. N. Amer. Louisiana*: 315, 372. 1771; in Hansen, *Löffling's J.*: 1154, 1174. 2008. Type: not designated.

Dandy (1967) dismissed *Paramini* Loefl. (1758) as a vernacular name, but it conforms to the *ICBN* (McNeill & al., 2006) with respect to the valid formation of generic names. Loeffling's (1758: 264) validating description, however, does not follow the format utilized in the *Genera Plantarum*, ed. 5 (Linnaeus, 1754).

■ NOMENCLATURAL RESOLUTION: TIPIFICATION AND PROPOSALS TO REJECT NAMES

Resurrecting names of genera and species that are validly published in the *Iter Hispanicum* (1758), but which have been ignored or suppressed for centuries is unpalatable as it would contribute to nomenclatural instability. Perhaps the most unsettling change would be to adopt *Cofer* in place of *Symplocos*, which would necessitate ca. 260 new combinations. Also unsettling would be to adopt *Justicia putata* (versus *Aphelandra pulcherrima*) and *Ayenia sidiformis* (versus *A. tomentosa*) as recent monographs of these genera adopted the non-Loeffling name. The nomenclatural implications of other overlooked Loeffling names are not as stark as these examples but since all of the Loeffling names discussed appeared within a decade of the 1 Mai 1753 starting point for *Spermatophyta* and *Pteridophyta* each one could potentially upset a well-established name.

Adding the *Iter Hispanicum* (1758) and its German translation (Loeffling, 1766) to the list of suppressed works (McNeill & al., 2006: Art. 32.9) is one mechanism for dealing with the nomenclatural confusion that would be created by accepting all 49 validly published names that apply to American taxa, but this is not an attractive solution as we would dispose of both the names we want to preserve and those we want to suppress. Nothing would be gained by suppressing the nine Loeffling genera in current use (see above) in order to dispose of the few genera that are problematic. The *ICBN* (McNeill & al., 2006: Art. 32.9) permits us to restrict the ranks that are being suppressed, but if we suppress only species then we would lose at least two names that are in wide use; *Acanthospermum australe* (Loeffl.) Kuntze and *Combretum fruticosum* (Loeffl.) Stuntz (generitype of *Combretum* Loeffl.). Also, as we have confined ourselves to analyzing American taxa we do not know the implications of suppressing the work for Iberian plants and the *ICBN* (McNeill & al., 2006: Arts. 32.9, 32.10) is silent as to whether or not one can suppress parts of a publication as opposed to an entire publication.

We were able to dispose of two Loeffling names, *Salvinia michelii* Loeffl. and *Waltheria melochioides* Loeffl., through

typification (see above). Other Loeffling names are equivocal; without clearly establishing their identity it is difficult to assess their impact and we have chosen to let sleeping dogs lie. Some Loeffling names have unpalatable nomenclatural consequences and in the interests of nomenclatural stability we have prepared separate proposals (Dorr & Wiersema, 2010) for the rejection of ten of these names: *Ayenia sidiformis* Loeffl., *Cofer* Loeffl., *Cruzeta* Loeffl., *Cruzeta hispanica* Loeffl., *Edechia inermis* Loeffl., *E. spinosa* Loeffl., *Iusticia putata* Loeffl., *Menais* Loeffl., *Muco* Loeffl., and *Samyda parviflora* Loeffl. Similarly we have included in these proposals (Dorr & Wiersema, 2010) the rejection of two names published by Linnaeus that are intimately associated with the *Iter Hispanicum* (1758); *Menais topiaria* L. and *Spermacoce suffruticosa* L.

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